



Built to Order.™



MADE IN THE USA

The World's Finest Steel Door and Window Systems

Stiles steel doors, windows and storefront systems have been recognized as the industry benchmark for design versatility, performance and craftsmanship for over 40 years.

We integrate high performance with architectural appeal, turning the designer's vision into reality while maintaining strict budgets and delivery schedules. Stiles doors ~ the fusion of aesthetics and performance.

Stiles opens doors to success...



This General Catalog is a reference source for a vast array of hollow metal products we offer. It has been structured as a tool for the designer, providing a platform of information necessary to detail and specify both basic and complex projects.



TECHNICAL ASSISTANCE

209 / 538-3667

EX. 3180

Section Contents

About Us	G-1.0
Buy American	G-1.1
Product Line Card	G-2.0
Products by CSI Format 2004	G-3.0
LEED® Credits	G-4.0-4.1
GSA / DOD Requirements	G-5.0
Credit Application / Terms	G-6.0 - 6.1
Invoice T&C / Warranty Data	G-6.2
Warranty	G-6.3
Finish Options	G-7.0

Stiles Custom Metal, Inc. has played a vital role in the hollow metal door and frame industry for five decades. Our company is a nationwide leader in the design and manufacture of built-to-order commercial steel doors and window systems. We are a trusted partner to architects, dealers, and construction companies -- guided by the values of The Golden Rule.

Stiles is dedicated to executing high standards based on project-specific solutions. Our markets encompass all facets of the construction industry. The combination of our highly experienced staff and state of the art equipment, allows us to deliver reliable, cost-effective door and window system solutions throughout the United States and abroad.

It is our pioneering spirit, manufacturing strength, practical industry experience, and philosophy of outstanding customer service, teamwork and integrity, that will lead us in continued success.



Advantages of Working with Stiles

Stiles is a proven resource for:

- **THE MOST EXPERIENCED PEOPLE IN THE INDUSTRY!**
- Unlimited flexibility with our dealer partners
- Durable, high-quality doors, frames, and window systems
- Environmentally friendly products
- Sophisticated manufacturing technologies
- Decades of industry experience
- Proven product performance in demanding environments
- Extensive engineering and design expertise
- Outstanding representation and customer support
- The convenience of single-point sourcing
- Vast fire rated and sound control portfolios
- Excellence in manufacturing stainless steel products
- Competitive pricing





MANUFACTURER CERTIFICATION
OF COMPLIANCE WITH
THE AMERICAN RECOVERY AND REINVESTMENT ACT OF 2009

Stiles Custom Metal, Inc. hereby certifies that it is in conformity with Subpart B – Buy America Requirement under §1605 of the American Recovery and Reinvestment Act (ARRA) of 2009 (Pub. L. 111-5).

§176.70 (a)

“(2) All of the iron, steel, and manufactured goods used are produced or manufactured in the United States.

(i) Production in the United States of the iron and steel used in the project requires that all manufacturing processes must take place in the United States, except metallurgical processes involving refinement of steel additives. These requirements do not apply to iron or steel used as components or subcomponents of manufactured goods used in the project.

(ii) There is no requirement with regard to the origin of the components or subcomponents in manufactured goods used in the project, as long as the manufacturing occurs in the United States.”

Stiles Custom Metal, Inc.

Devan Stiles
Secretary-Treasurer

Steel Doors

Steel Stiffened Core
(Fiberglass Insulation)

Honeycomb Core

Temperature Rise Core

Polyurethane Core

Polyisocyanurate Core

Polystyrene / EPS Core

Gamma™ (Lead Lined Core)

Lab-Tek™ (Hermetically Sealed Door)

Endura™ (Impact Resistant Core)

True Stile + Rail (Various Cores)

Clad Steel Doors (Various Cores)

Aluminum, Bronze, & Copper Clad
HPL Laminate Clad

Mega Door™ (Oversize Industrial Doors)

Frames

Double Egress

KD or KD Drywall

Pocket Frames

Arched & Radius Frames

Round Frames

Split Frames

Seal-Tek™ Kerfed Frames

Stainless Steel Frames, Mill to #8 Finish

Welded Frames

Sound Control Products

Audia™ Sound Control Doors & Windows

Up to STC 52 Doors, STC 61 Windows

Stainless Steel Doors & Frames

Stainless Steel, Seamless, Mill to No. 8 Finish

Lab-Tek™ SS
(Hermetically Sealed / Various Cores)

Bronze Doors & Frames

Authentic™ Bronze Doors, Frames & Windows

Bullet Resistant Products

Ballistica™ Bullet Resistant Doors & Windows

Bullet Resistant Doors + Accessories

Bullet Resistant Windows + Accessories

Steel Storefront & Window Systems

Steel Storefront & Window Systems

Fire Rated products

Doors and Frames Up to 3-HR Fire Rated

Fire Rated Storefront & Windows

Services

Stiles Quick Ship
1, 5, and 10-Day Lead Times

Factory Prime Coat

Match Any Hardware Location

Factory Assembled Packages

08 1100 METAL DOORS AND FRAMES
Bronze Doors & Frames
Stainless Steel Doors and Frames
Steel Doors and Frames
08 3400 SPECIAL FUNCTION DOORS
Clean Rooms
Hurricane Resistant Doors
Radiation Protection Doors
Sliding Industrial Doors
Sound Control Doors
Thermal Shielding Doors
08 3950 BULLET RESISTANT DOORS
Ballistic Resistant Assemblies
Ballistic Resistant Panels
08 4000 ENTRANCES, STOREFRONTS, & CURTAIN WALLS
Metal Framed Curtain Wall
08 5000 WINDOWS
Bronze Windows
Sound Control Windows
Stainless Steel Windows
Steel Windows
Window Restoration and Replacement



Stiles LEED® Certification Contribution

Stiles products can help to achieve prerequisites and accumulate points in the categories and credit areas listed below. Due to the built-to-order nature of Stiles doors, frames and window systems, product qualifications will vary and are dependent on your specific requirements.

MR - Materials & Resources

MR Credit 1.2

Building Reuse

Maintain existing interior non-structural elements

Extend the lifecycle of existing building stock, conserve resources, retain cultural resources, reduce waste and reduce environmental impacts of new buildings as they relate to materials manufacturing and transport.

Stiles door and frame systems are built for durability and longevity. In many cases, existing Stiles doors and frames can be re-utilized on LEED® projects to help obtain this credit.

MR Credit 4

Recycled Content

Increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

Stiles products are manufactured with:

Minimum post-consumer recycled content: **19.8%**

Minimum post-industrial (pre-consumer) recycled content: **14.4%**

Minimum combined recycled content (post-consumer + 1/2 post-industrial): 36.9%

Post-consumer material is defined as waste material generated by households or by commercial, industrial and institutional facilities in their role as end-users of the product, which can no longer be used for its intended purpose.

Post-industrial (pre-consumer) recycled content refers to scraps that are left over during industrial or manufacturing processes and which are subsequently recycled and reused.

IMPORTANT: Steel is the only material for which LEED® allows a default recycled-content value (25.5% post-consumer content) without the requirement of documentation. Most steel used by Stiles has a much higher recycled content, however as recycled content varies from steel mill to steel mill and even from coil to coil, Stiles has elected to report the default industry figures which are sufficient for LEED® purposes.

MR Credit 5.1 & 5.2

Regional Material

Use building materials or products that have been extracted, harvested or recovered, as well as manufactured [1] within 500 miles of the project site for a minimum of 10% or 20%, based on cost, of the total materials value.

[1] "Manufactured" refers to the point of final assembly of components at Stiles Custom Metal, Inc., Ceres, CA, USA

MR Credit 7

Certified Wood

Encourage environmentally friendly forest management.

Stiles offers optional FSC certified veneers on select Audia™ Sound Control Doors and Ballistica™ Bullet resistant doors.

IEQ - Indoor Environmental Quality

IEQ Credit 4.1 & 4.2

Low-Emitting Materials

Adhesives & Sealants, Paints & Coatings

Reduce the quantity of indoor air contaminants that are odorous and/or harmful to the comfort and well-being of installers and occupants.

Primarily, this credit pertains to materials within the realm of weatherproofing systems, however, Stiles offers solutions including factory priming / finish painting and factory-installed glass that will eliminate the necessity of applying finishes or utilizing adhesives on-site. Stiles primers, finish paints, stains and clear coats meet low-VOC requirements (less than 250 grams/litre).

IEQ - Indoor Environmental Quality (cont.)

IEQ Credit 8.1 & 8.2

Daylight & Views

To provide building occupants with a connection between indoor spaces and the outdoors through the introduction of daylight and views into the regularly occupied areas of the building.

The structural integrity of Stiles steel door and window systems makes allowance for narrow sightlines, creating enhanced day-lighting opportunities without sacrificing strength and performance.

Specific LEED® Credits for Schools

IEQ Credit 9

Enhanced Acoustical Performance

To provide classrooms that facilitate better teacher-to-student and student-to-student communications through effective acoustical design. Design the building shell, classroom partitions and other core learning space partitions to meet the Sound Transmission Class (STC) requirements of ANSI S12.60, Acoustical Performance Criteria, Design Requirements and Guidelines for Schools, except windows, which must meet an STC rating of at least 35.

Stiles maintains a vast portfolio of sound control door and window options that can help gain credit for Enhanced Acoustical Performance. The range of STC level options include:

Sound Control Doors: **STC 38 to STC 52**

Sound Control Windows: **STC 38 to STC 59**

IEQ Credit 10

Mold Prevention

To reduce the potential presence of mold in schools through preventive design and construction measures.

Stiles doors and frames are available with factory-applied anti-microbial coatings that act as a mold prevention measure that can contribute to this credit. Mold-resistant core materials and seamless door edges can also contribute.



Stiles produces doors, frames, and window systems for a wide range of government projects, from nuclear weapons laboratories to Federal courthouses. Our ability to manufacture to virtually any government standard, along with making provision for one-of-a-kind projects, makes Stiles a first choice in door, frame, and window system supply on projects for:

GSA / Federal Projects

- Federal Buildings / Courthouses, Post Offices, Federal Office Complexes
- NASA Facilities, Homeland Security / US Coast Guard Facilities
- Department of Energy, Department of State, and EPA Facilities
- US Border Patrol Facilities

DOD / Military Projects

- US Air Force, US Army, US Navy, and US Marine Corps
- DOD Laboratory Facilities, Test Facilities, and Associated Buildings

State and Municipal Projects

- District and Municipal Courthouses, Capitol Complexes, State & Municipal Office Buildings
- Wastewater Treatment Plants, Law Enforcement Centers, Schools and Universities



LLNL, Livermore, CA



Vandenberg AFB, CA



Fresno City Hall, Fresno, CA



NASA / Ames Research Center, CA



City Hall, San Francisco, CA



USAF Medical Center, Travis AFB, CA

Our experienced engineering and project management teams are well-versed in assisting architects and designers on government projects. As a build-to-order manufacturer, we specialize in creating site-specific products for projects with the most complex requirements.



Steel Door + Window Systems

Stiles Custom Metal Inc.
1885 Kinser Road
Ceres CA 95307-4606
T 209 / 538-3667
F 209 / 538-2776
www.stilesdoor.com

Account Application & Agreement

Business Information

Legal name: _____

Street Address: _____

Mailing Address (if different): _____

Phone: _____ Fax: _____

Description of Business: _____ Year Established: _____

Corporation Partnership LLC Proprietorship FEIN/SS#: _____

Are your purchases for resale? ☐ YES ☐ NO If yes, please attach a resale exemption certificate.

Name of accounts payable contact: _____

Direct Phone: _____ Email: _____

Trade References

Name	Contact Name	Phone
_____	_____	_____
_____	_____	_____
_____	_____	_____

Banking Reference

Name: _____ Account No.: _____

Contact Name: _____ Title: _____ Phone: _____

Terms & Conditions of Sale

All sales by Stiles Custom Metal, Inc. (hereafter, "SCM") are entered into at Ceres, California, and are expressly limited to and made conditional upon the acceptance by Purchaser of the exact terms, conditions and limited warranty contained in this document which supersede any additional or different terms suggested by the Purchaser unless expressly agreed to in writing by a corporate officer of SCM. Purchaser's signature below shall constitute Purchaser's irrevocable acceptance of these terms, conditions and limited warranty.

The terms and conditions of sale shall be Article 2 (Sale of Goods) of the Uniform Commercial Code with the following clarifications:

1. Scope. What is included in and excluded from the price is described or referenced in the SCM quotation.
2. Pricing. Due to raw material price volatility, SCM has the right to void a quotation after 30 days, without notice, if it was not accepted by Purchaser during that period. Due to raw material price volatility orders not shipped within six months of the quotation date are subject to price revisions so that the pricing for of the remaining unshipped product is equal to current pricing.
3. Credit and Payment. If approved for credit, standard terms are NET-30. A deposit/retainer/letter of credit may be required for orders that involve a high degree of preliminary design, engineering or specialized materials. A deposit/retainer/letter of credit may also be required if Purchaser's credit history warrants it. Continuing outstanding balances not paid when due shall accrue an interest charge of 1% per month from the date due until paid in full.

4. Sales Tax. Pricing does not include sales tax. California sales tax (Ceres District rate) will be collected from Purchaser unless the product is shipped outside the boundaries of California or Purchaser gave SCM a valid California Sales Tax exemption certificate prior to shipment.
5. Shipment Schedule. Purchaser shall provide to SCM all information necessary for fabrication sufficiently in advance of the desired shipment date(s) to allow for a customary time for fabrication. Upon receipt of the requisite fabrication information, SCM can furnish an estimate of the anticipated shipment date(s). SCM will make every effort to ship when anticipated, but due to the constraints of custom fabrication, does not guarantee it.
6. Freight. When freight is included, the terms are "F.O.B., SCM's plant, freight prepaid and allowed".
7. Installation. Purchaser shall inspect all goods and shall verify height, width, depth and swing prior to installation. Purchaser shall consult SCM's website (www.siltesdoor.com) to obtain a storage and installation guide.
8. Limited Factory Warranty. This limited warranty is Purchaser's sole and exclusive remedy for defective product. SCM warrants its products to be free from defect in both material and workmanship for a period of three (3) years from the date of shipment. Upon validation and verification by SCM of a product defect, SCM shall, at its sole option, either repair or replace the product. This warranty is limited to the repair or replacement of the defective product. Should SCM be unable to make a timely repair, SCM shall subcontract the repair. Repair or replacement shall not extend the warranty beyond its original time period. Purchaser may not charge-back or deduct from any sum due SCM for any repair or replacement performed without SCM's express written authorization. This warranty is null and void, if modifications or repairs are made by any party other than a factory authorized representative. This limited warranty does not cover defects attributable to or arising from: abnormal wear and tear; improper use or operation; neglect; accident; shipping; improper hardware; handling, storage, or installation not in compliance with SCM's installation guide; design specified by purchaser; or material specified by purchaser. Except for the limited warranty specifically stated herein, SCM expressly excludes and disclaims all other warranties, express or implied, of merchantability and/or fitness for use for a particular purpose as the product was/is fabricated per Purchaser specifications and/or instructions.
9. Other Remedies. Under no circumstances is SCM liable for any breach of this agreement for consequential, direct, indirect, incidental, punitive or exemplary damages, claims or costs of any nature including, without limitation, those claimed for removing, reinstalling, repainting, refinishing or loss of time. Purchaser's sole and exclusive remedy for defective products shall be as stated above under the paragraph entitled "Limited Factory Warranty".
10. Cancellation. There is a 10% cancellation fee to compensate for processing and engineering. Additionally, if special (non-stock) material was purchased, Purchaser is responsible for its actual cost. No credit will be given for the cancellation of product already in fabrication.
11. Insurance. SCM has product insurance and proof of coverage is available upon request. Per AIA General Conditions of the Contract for Construction (A201), additional insured coverage is not provided.
12. Arbitration. Both SCM and Purchaser agree to submit to binding arbitration any and all claims, disputes and controversies between or among them in any way relating to this agreement, its negotiation, execution, modification or extension. The arbitration shall be administered by the American Arbitration Association and shall be conducted in accordance with the commercial arbitration rules of the American Arbitration Association.
13. Legal Costs. The prevailing party in any action, including arbitration, to enforce or interpret this agreement shall be entitled to attorney's fees and costs. The right to post-judgment costs and fees incurred to enforce a judgment shall not be merged into any award or judgment, and Purchaser agrees to pay actual attorney and related court fees incurred in the collection of any and all delinquent accounts of Purchaser and the enforcement of any judgment. Venue for all legal actions, including arbitration, shall be Stanislaus County, California; and, California law shall govern this agreement.
14. Severability. These terms are severable. Unenforceability or waiver of any of its provisions shall not affect the remaining provisions.

I CERTIFY THAT THE INFORMATION I HAVE PROVIDED ON THIS APPLICATION IS TRUE AND CORRECT. I ALSO HEREBY ACKNOWLEDGE AND AGREE TO THE TERMS, CONDITIONS AND LIMITED WARRANTY DESCRIBED HEREIN.

NAME OF BUSINESS: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____



The following Terms, Conditions, and Warranty data is part of all Stiles invoices, and is supplied here for review and reference purposes.

GENERAL TERMS: All sales by Stiles Custom Metal, Inc. (Seller) are subject to these Terms, Conditions and Warranty. Seller does not offer any other Terms, Conditions or Warranty. Should Seller sign Buyer's purchase documents, it is solely as an acknowledgement and shall not be construed as Seller's acceptance of any other terms, conditions or warranty other than what is described in this document.

GOVERNING LAW: This document shall be interpreted under the Uniform Commercial Code as adopted in the State of California. The jurisdiction and venue for the resolution of any dispute arising from any transaction with the Seller shall be the County of Stanislaus, California. These terms are severable; unenforceability or waiver of any of its provisions shall not affect the remaining provisions.

CREDIT POLICY: Seller offers several credit terms: prepayment, credit card, advanced deposit or NET-30. The terms that apply to the buyer shall be determined solely by the Seller whose decision will be based upon the type of Product ordered, Buyer's payment history with Seller and Buyer's geographic location, amongst other factors. In the event that legal action is required for the collection of past due monies, Buyer agrees to pay Seller's reasonable attorneys' fees and court costs in addition to interest at the rate of 10% per annum on the past due amount.

ADEQUATE ASSURANCE OF BUYER'S PERFORMANCE: Should Buyer's payment performance become unsatisfactory or should Buyer's creditworthiness appear to become impaired, Seller reserves the right to change credit terms and/or deter or discontinue further shipments, without prejudice to any other lawful remedy, until satisfactory assurances of Buyer's performance and/or creditworthiness are received by the Seller.

SALES TAX: Quotations do not include sales tax. Seller is required to collect sales tax on product shipped within the boundaries of California unless the Buyer provided a valid California Sales Tax exemption certificate to the Seller PRIOR to shipment (Invoices will not be changed retroactively). Sales are negotiated and entered into at Ceres, California for sales tax purposes.

TIME LIMITATIONS: Quotations are firm for 30 days from the quotation's date. Due to the recent volatility of raw material and freight costs, Seller reserves the right to adjust pricing at any time after that time period.

SHIPMENT/FREIGHT: All shipment date estimates are based upon conditions prevailing at the time the estimate was made. Seller will use its best efforts to meet that estimated shipment date, but it is not guaranteed. If freight is paid by Seller, freight terms are "FOB, plant, freight prepaid and allowed".

LIMITED WARRANTY: Seller warrants its Products and Components to be free from defects in material and workmanship for a period of three (3) years from the date of shipment. Warranty Holder's sole and exclusive remedy for defective Product/Component shall be, at Seller's option, the repair or replacement of the defective Product/Component, or a refund of its purchase price. This limited warranty does not cover defects attributable to or arising from any of the following: wear and tear; improper use or operation; neglect; accident; shipping damage; improper hardware; handling, storage, or installation not in compliance with Seller's instructions or generally accepted industry standards; customer specified design; customer specified materials; or modifications to the Product that were not made by Seller. Buyer shall consult Seller's website (www.stilesdoor.com) to obtain installation guides and other instructions. This limited warranty does not cover costs incurred by the Warranty Holder that are incidental to the repair or replacement of the Product or component, such as, but not limited to, labor for removing, reinstalling, refinishing, or repainting Product; other materials removed, reinstalled, refinished or repainted for the repair or replace Product; delays; purchase of substitutes; or any other special, consequential or incidental damage. No other warranties, either expressed or implied, are made by Seller. Seller hereby excludes any warranty of merchantability or fitness for a particular purpose.

CANCELLATION: Cancellation of an order, in part or entirety, shall obligate the Buyer to provide payment for all work performed by the Seller, including processing and engineering, prior to Seller's receipt of Buyer's cancellation notice. Said payment shall not be less than 10% of the selling price of the items canceled.

INSURANCE: Seller carries appropriate and adequate product liability insurance. Proof of coverage is available upon request. "Additional insureds" are not named.



Stiles Custom Metal Inc
1885 Kinser Road
Ceres CA USA 95307-4606

T: 209 / 538-3667
209 / 538-2776

www.stilesdoor.com

LIMITED FACTORY WARRANTY CERTIFICATE

Stiles Custom Metal, Inc. warrants its products to be of good material and workmanship and free from material defect for five (5) years from the date of shipment. Inserted or applied components such as louvers, veneer, glass, HPL, screens etc. that are not manufactured by Stiles are covered by that manufacturer's warranty and not by Stiles.

Stiles Custom Metal, Inc. shall repair or replace, at its option and expense, any material defect in materials or workmanship that may be discovered during the warranty period. This warranty is limited to the repair or replacement of the defective product. Repair or replacement shall not extend the warranty beyond its original time period.

Buyer shall not charge-back or deduct from any sum due Stiles Custom Metal, Inc. for any repair or replacement performed without Stiles Custom Metal, Inc.'s express written authorization.

This limited warranty excludes remedies for defects or damages caused by ordinary wear and tear; improper use; improper or insufficient installation, operation, maintenance or storage; abuse; design specified by the Buyer; material specified by the Buyer; and any modification not performed by Stiles Custom Metal, Inc.

Except for the limited warranty specifically stated herein, Stiles Custom Metal, Inc. expressly excludes and disclaims all other warranties, express or implied, of merchantability and/or fitness for use for a particular purpose as the product was/is fabricated per Buyer's specifications and/or instructions.

Under no circumstances is Stiles Custom Metal, Inc. liable for consequential, direct, indirect, incidental, punitive or exemplary damages, claims or costs of any nature including, without limitation, those claimed for removing, reinstalling, repainting, refinishing or loss of time.

THIS LIMITED WARRANTY CONSTITUTES PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR DEFECTIVE PRODUCT.

3/17

Standard Primer



Stiles doors, frames, windows, and storefront systems are available prime coated with a proprietary EPA approved Alkyd gray primer (ready for finish painting by others).



Built-to-Order Steel Doors by Stiles

Stiles builds steel doors to your exact specifications rather than stock-piling "cookie-cutter" products that you're forced to accept "as is." Count on Stiles to experience strength in flexibility, at competitive prices and lightening-fast lead times.

- Commercial Doors and Entrance Systems
- 100s of Elevations to Choose From
- Flush, Glass Lite and Solid Panel Configurations
- Core Materials for Every Application
- Square, Radius, Arched / Gothic Tops and More
- Factory Hardware Prep & Hardware Installation
- Cold Rolled, A60 or G90 Galvanized
- Sustainable materials and construction processes
- Factory Primed or Finish Painted
- Multi-Feature: Bullet resistant, Sound Control, Fire Rated



Door Types

Steel Stiffened Core Doors (Fiberglass Insulation)	D-1.0
Composite Core Doors	D-1.1
Temperature Rise Core Doors	D-1.2
Lead Lined Core Doors	D-1.3
Lab-Tek™ (Hermetically Sealed Doors)	D-1.4
Impact Resistant Core Doors	D-1.5
Commercial Entrance Systems	D-1.6
Stile + Rail Doors	D-1.7
Clad Doors	D-1.9
Laminate Doors	D-1.11
Oversize Industrial Doors	D-1.12

Elevations

F + D Series (Flush + Dutch)	D-2.0
GL Series (Glass Lite)	D-2.1
SP Series (Solid Panel)	D-2.2
LV Series (Louwer)	D-2.2
VL Series (Vision Lite)	D-2.3
TDL Series (True Divided Lite)	D-2.4
AT Series (Arch Top)	D-2.5
RT Series (Radius Top)	D-2.6
Historical Replication	D-2.7

Construction

Glass Lite + Panel Mouldings	D-3.0 to D-3.1
Muntin Details	D-3.2
Vertical Door Edge Options	D-3.3
Door Edge + Astragal Options	D-3.4
Door Tops + Bottoms / Louvers	D-3.5
Weatherization	D-3.6
Specifications	Appendix

Steel Stiffened Steel Doors Fiberglass Insulation

Description	Steel Stiffened doors are built-to-order for both interior and exterior high frequency use locations.
NAAMM / HMAA	802, 810, 850, 860, 861, 867
ANSI / SDI	Levels 1, 2, 3 & 4 - (ANSI A250.8-2003)
ANSI A250.5	4,000,000 Cycles
Material	1. Cold Rolled Steel 2. A60 Galvanized 3. Stainless Steel
Faces	18, 16, 14 or 12 GA
Door Edges	Beveled 1/8" in 2"
Vertical Edges	1. Welded 3" OC, Seamless 2. Continuous Welded, Seamless See Vertical Door Edges, D-3.3
Top / Bottom	16 GA Channels See Door Top & Bottoms, D-3.5
Reinforcements	Hinges: 7 GA, 1-1/2" X 10" Locks: 11 GA or equal # threads Closers: 14 or 12 GA
Service Temp	-65° to 200° (F)
Core	22 GA Steel Stiffened, 5-1/4" apart
Insulation	1. Fiberglass Batt, 1.5 lb. Density R Factor = 1.07 U-Value = .39
STC	Min. Sound Control Rating: STC 40 See Sound Control
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
STD Primer	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship

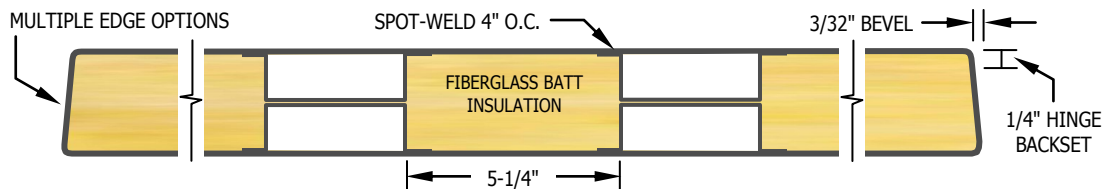


Environmental Data

As encapsulated door core material, Fiberglass does not pose health hazards or emit toxic gas. During fire, no toxic gasses are produced and is classified as fire retardant.

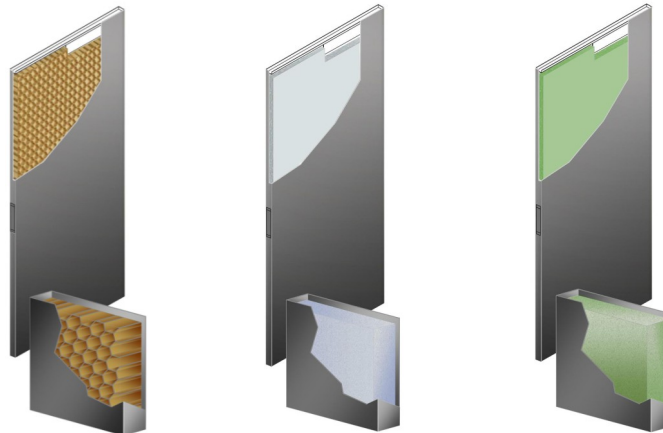
All resins and bonding agents utilized in fabrication are low VOC / environmentally friendly. The long life cycle and recyclability of steel creates a truly sustainable product.

NOTE: Above door data varies depending on specific design criteria



Door Construction Options

Door Thickness	1-3/4"
Face Skins	1) 18 Gauge 2) 16 Gauge 3) 14 Gauge 4) 12 Gauge
Material Options	1) Cold Rolled Steel 2) A60 Galvanized Steel 3) Stainless Steel
Door Edges	Beveled, 1/8" in 2"
Edge Construction Options	1) Welded 3" OC, Seamless 2) Continuous Welded, Seamless See Vertical Door Edge Options, D-3.3
Top and Bottom Channels	16 GA See Door Top + Bottom Details, D-3.5
Hinge Reinforcements	7 GA, 1-1/2" X 10"
Lock Reinforcements	11 GA or equal # threads
Closer Reinforcements	1) 14 GA 2) 12 GA
Standard Primer (Gray)	EPA Approved, Alkyd, Zinc Compound
Finish Options	See Finish Options, G-5.0
Quick Ship	1, 3, 5, or 10-Day Options See Quick Ship
NAAMM / HMMA / SDI	See Individual Door Data Sheets



Door Data

Core Type	Honeycomb	Polyisocyanurate	Polystyrene	
Core Density	N/A	2.0 pcf	1.5 pcf	
Compression Strength	45 psi	28 psi	35 psi	
R-Factor	2.44	12.40	8.05	
U-Value	.40	.08	.12	
Service Temperature (F)	32° to 90°	-100° to 250°	-50° to 130°	
Min. Sound Rating	STC 35	STC 26	STC 23	
Fire Rating	See Fire Rated Section			
Bullet Resistant	UL Levels 1-8 See Bullet Resistant Section			
ANSI A250.5	1,000,000 cycles			

NOTE: Above door data varies depending on specific design criteria

Temperature Rise Steel Doors Fire Rated Core, Composite Construction

Description	Temperature Rise doors are built-to-order, suitable for interior locations.
NAAMM / HMMA	802, 810, 850, 867
ANSI / SDI	Levels 1, 2, 3 & 4 - (ANSI A250.8-2003)
Rating	Temp Rise Rating: 250° F or 450° F
Material	1. Cold Rolled Steel 2. A60 Galvanized
Faces	18, 16, 14 or 12 GA
Door Edges	Beveled, 1/8" in 2"
Vertical Edges	1. Welded 3" OC, Seamless 2. Continuous Welded, Seamless See Vertical Door Edges
Top / Bottom	16 GA Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA, 1-1/2" X 10" Locks: 11 GA or equal # threads Closers: 14 or 12 GA
Service Temp	(Fire Resistant)
Core	Fire Resistant Core R Factor = 3.95 U-Value = .25
Core Density	32 pcf
Core Strength	Compression Strength: 100 psi
STC	Min. Sound Control Rating: STC 36 See Sound Control
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
STD Primer	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship



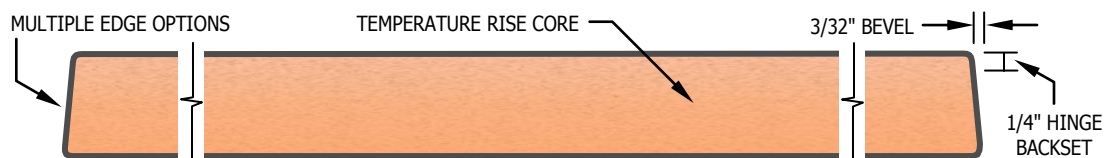
Environmental Data

Temperature Rise composite cores are made from natural mineral materials that pose no environmental threat to landfill.

All resins and bonding agents utilized in fabrication are low VOC / environmentally friendly. Stock sheet materials are ordered in sizes that minimize waste.

The long life cycle of steel makes the Temperature Rise door a truly sustainable product.

NOTE: Above door data varies depending on specific design criteria



Gamma™ Lead Lined Steel Doors Steel Stiffened with Lead-Lined Cores

Description	Lead-Lined doors are built-to-order, suitable for both interior and exterior locations.
NAAMM / HMMA	802, 810, 850, 860 & 861
ANSI / SDI	Levels 1, 2, 3 & 4 - (ANSI A250.8-2003)
Material	1. Cold Rolled Steel 2. A60 Galvanized
Faces	18, 16, or 14 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	1. Welded 3" OC, Seamless 2. Continuous Welded, Seamless See Vertical Door Edges
Top / Bottom	16 GA Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA, 1-1/2" X 10" Locks: 11 GA or equal # threads Closers: 14 or 12 GA
Service Temp	-20° to 150°
Core	22 GA Steel Stiffeners w/ Lead Between R Factor = N/A U-Value = N/A
Lead Thickness	Varies per Spec
STC	Available (Contact factory)
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
STD Primer	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship

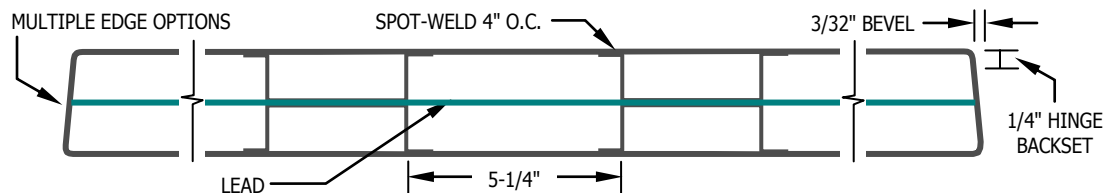
NOTE: Above door data varies depending on specific design criteria



Environmental Data

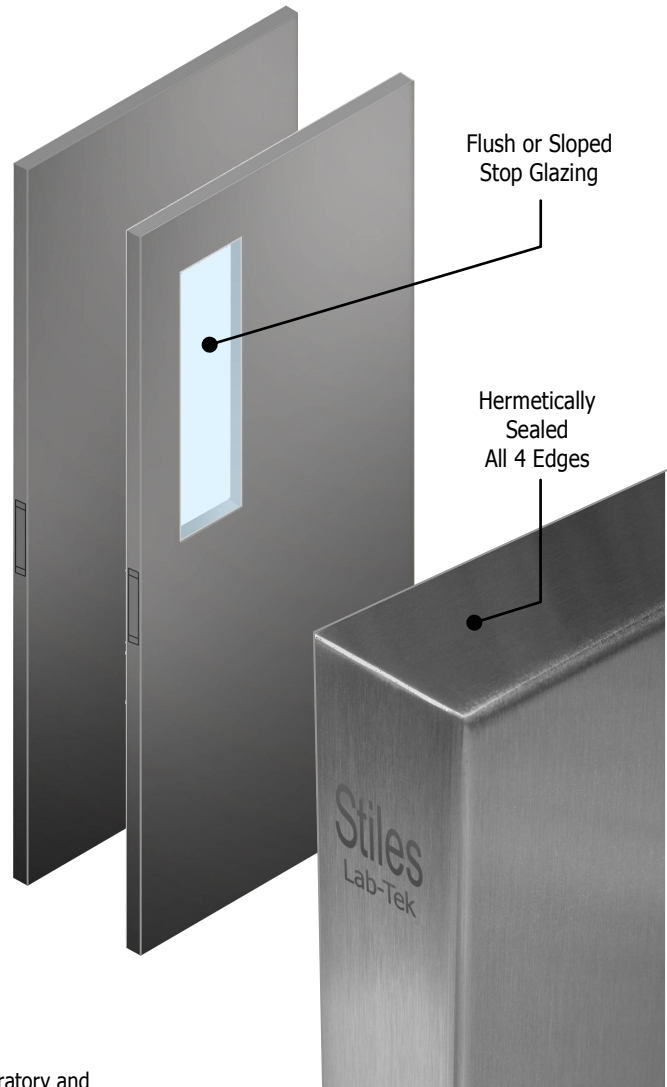
Recycled lead sheet is utilized for shielding. Lead is toxic when ingested; all precautions are taken during fabrication to prevent exposure. Lead shielding is encapsulated in the Gamma door core, eliminating any exposed lead surfaces.

The long life cycle of steel makes the Gamma door a truly sustainable product.



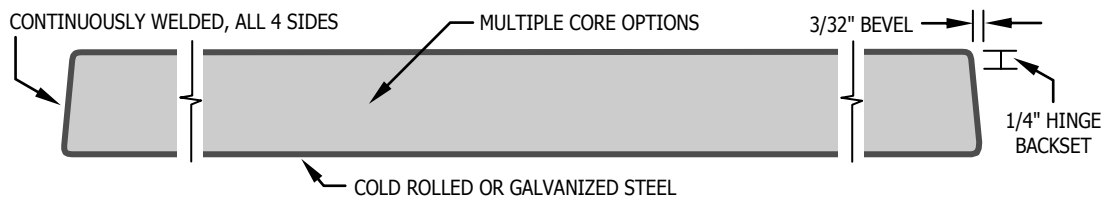
Lab-Tek™ Steel Clean Room Doors Hermetically Sealed

Description	Lead-Tek doors are built-to-order, suitable for both interior and exterior locations.	
NAAMM / HMMA	802, 810, 850, 861 & 867	
Material	1. Cold Rolled Steel	2. A60 Galvanized
Faces	18, 16, 14 or 12 GA	
Door Edges	Beveled, 1/8" in 2"	
Vertical Edges	Continuous Welded all 4 edges Hermetically Sealed See Vertical Door Edges	
Top / Bottom	16 GA, Sealed all 4 edges See Door Top & Bottoms	
Reinforcements	Hinges: 7 GA, 1-1/2" X 10" Locks: 11 GA or equal # threads Closers: 14 or 12 GA	
Service Temp	-20° to 150°	
Core	Varies, depending on application	
STC	Available (Contact factory)	
Fire Rating	See Fire Rated	
Bullet Resistant	See Bullet Resistant	
STD Primer	Gray, EPA Approved, Alkyd, zinc compound primer, standard. Finish paint also available See Finishes	



NOTE: Above door data varies depending on specific design criteria

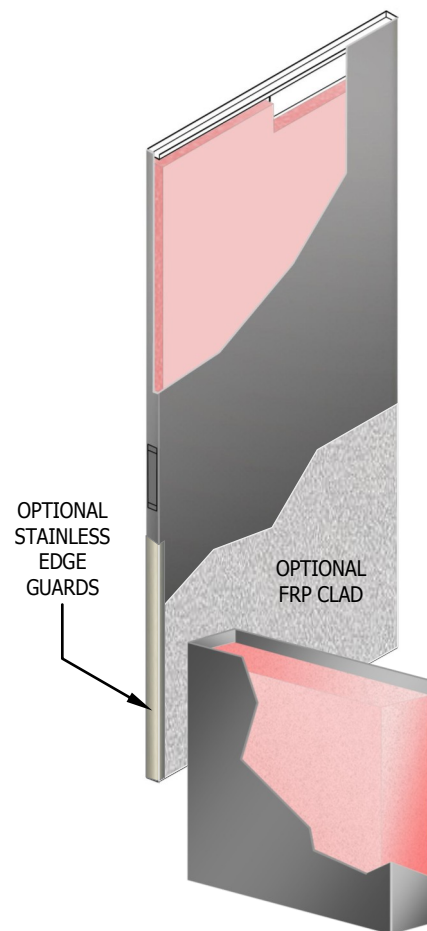
- Engineered for Pharmaceutical, Medical, Hi-Tech, and all other laboratory and clean room applications.
- Seamless - continuously welded on all 4 door edges.
- Available in a variety of configurations, sizes, and styles, with or without glass lites.
- Flush and sloped stop glazing options to repel bacteria and shed water during wash-down / cleaning operations.
- Designed for high frequency use without sacrificing appearance.
- Cold Rolled or Galvanized Steel; Flush or Glass Lite.
- Hybrid options available including bullet-resistant and fire rated.



Impact Resistant Steel Doors

Impact Resistant Cores, Composite Construction

Description	Doors are built-to-order, suitable for both interior and exterior locations.	
NAAMM / HMMA	802, 810, 850, 860 & 861	
ANSI / SDI	Levels 1, 2, 3 & 54 - (ANSI A250.8-2003)	
Material	1. Cold Rolled Steel	2. A60 Galvanized
Faces	18, 16, 14 or 12 GA	
Armor Options	1. FRP Face Cladding 2. Stainless Steel Edge Guards	
Door Edges	1-3/4" thick, beveled, 1/8" in 2"	
Vertical Edges	1. Welded 3" OC, Seamless 2. Continuous Welded, Seamless 3. Open Seam See Vertical Door Edges	
Top / Bottom	16 GA Channels See Door Top & Bottoms	
Reinforcements	Hinges: 7 GA, 1-1/2" X 10" Locks: 11 GA or equal # threads Closers: 14 or 12 GA	
Service Temp	-150° to 200°	
Core	Proprietary Impact Resistant R Factor = 8.75 U-Value = .11	
Core Density	6.0 pcf	
STC	None	
Bullet Resistant	See Bullet Resistant	
STD Primer	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes	
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship	



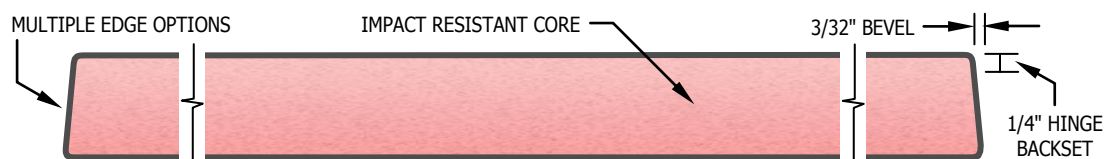
Environmental Data

The proprietary core material is made with recycled materials and has ZERO ozone depleting potential. It is HCFC free.

All resins and bonding agents utilized in the fabrication of these doors are low VOC / environmentally friendly. Stock sheet materials are ordered to make provision for minimal waste.

The long life cycle of the steel makes it a truly sustainable product.

NOTE: Above door data varies depending on specific design criteria



Commercial Steel Entrance Doors

Narrow, Medium & Wide Stile



Series 200

2" Stiles + Top Rail
5" Bottom Rail



Series 300

3" Stiles + Top Rail
6" Bottom Rail



Series 400

4" Stiles + Top Rail
8" Bottom Rail



Series 600

6" Stiles + Top Rail
10" Bottom Rail

Options

Tough yet attractive, the clean lines of Stiles Commercial Entrances are adaptable to numerous specialty features. Create a customized appearance with numerous elevations, materials options, molding configurations, glass, hardware, and finishes.

Flexibility

Designed to complement new or remodel construction, contemporary or traditional architecture.

Performance

To resist torsion forces, all four Stiles Commercial Entrance models feature the unparalleled structural integrity of our proprietary high-performance steel construction, far superior to bolt-together aluminum doors.

Economy

Field labor can be reduced with factory-installed hardware, glass, and finishing, making Stiles Entrances as cost-effective as they are attractive.

Configurations

- Swing, Fold, Slide
- Single or Double-Acting
- Multiple Molding Options
- Glass from 1/4" - 1"
- Frame Options
- Elevation Options
- Air-Tek™ Weatherseals

Materials

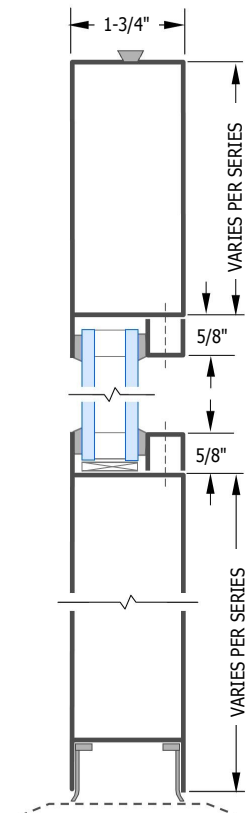
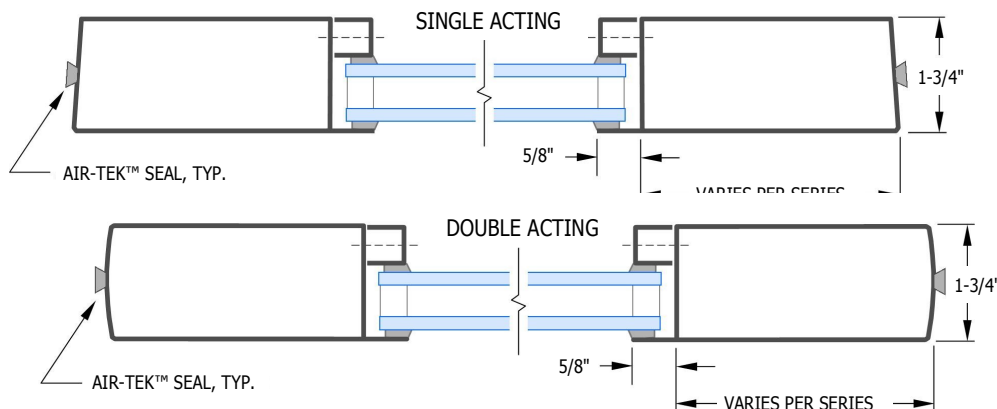
- A60 Galvanized Steel, Stainless Steel & Bronze
- 18, 16, 14, or 12 GA
- Factory Finishes and Surface Treatments
- Green Materials and Manufacturing Processes
- Extremely Long Life Cycle

Hybrid Systems

- Bullet / Blast Resistant, Fire Rated, Sound Control

Factory Finishes

- Primed / Painted
- Stainless Surface Textures
- Bronze Surface Textures



True Stile & Rail Steel Doors

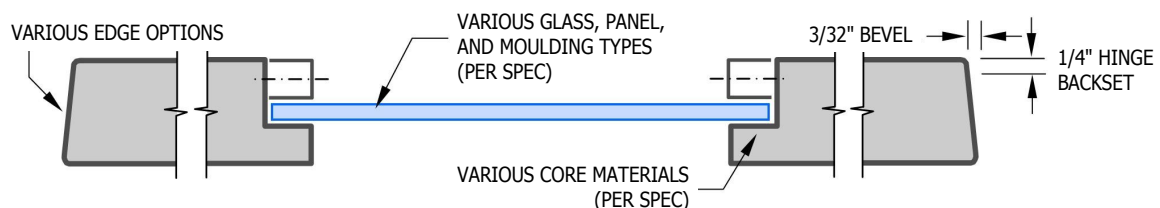
Description	True Stile & Rail doors are built-to-order, suitable for both interior and exterior locations.	
NAAMM / HMMA	860 (Welded 3" OC, Filled Seamless) 861 (Continuous Weld, Seamless Edge)	
ANSI / SDI	II/1, III/1, IV/1 (Open Seam Edge) II/2, III/2 & 3, IV/2 (Seamless Edge) (per ANSI A250.8-2003, Level / Model)	
Material	1. Cold Rolled Steel 2. A60 or G90 Galvanized	
Faces	18, 16, 14 or 12 GA	
Door Edges	1-3/4" thick, beveled, 1/8" in 2"	
Vertical Edges	Continuous Welded, Seamless See Vertical Door Edges	
Top / Bottom	16 GA Channels See Door Top & Bottoms	
Reinforcements	Hinges: 7 GA, 1-1/2" X 10" Locks: 11 GA or equal # threads Closers: 14 or 12 GA	
Core Options	Fiberglass, Urethane, Honeycomb, Styrene	
Fire Rating	See Fire Rated	
Bullet Resistant	See Bullet Resistant	
STD Primer	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes	
Quick Ship	Contact Factory	

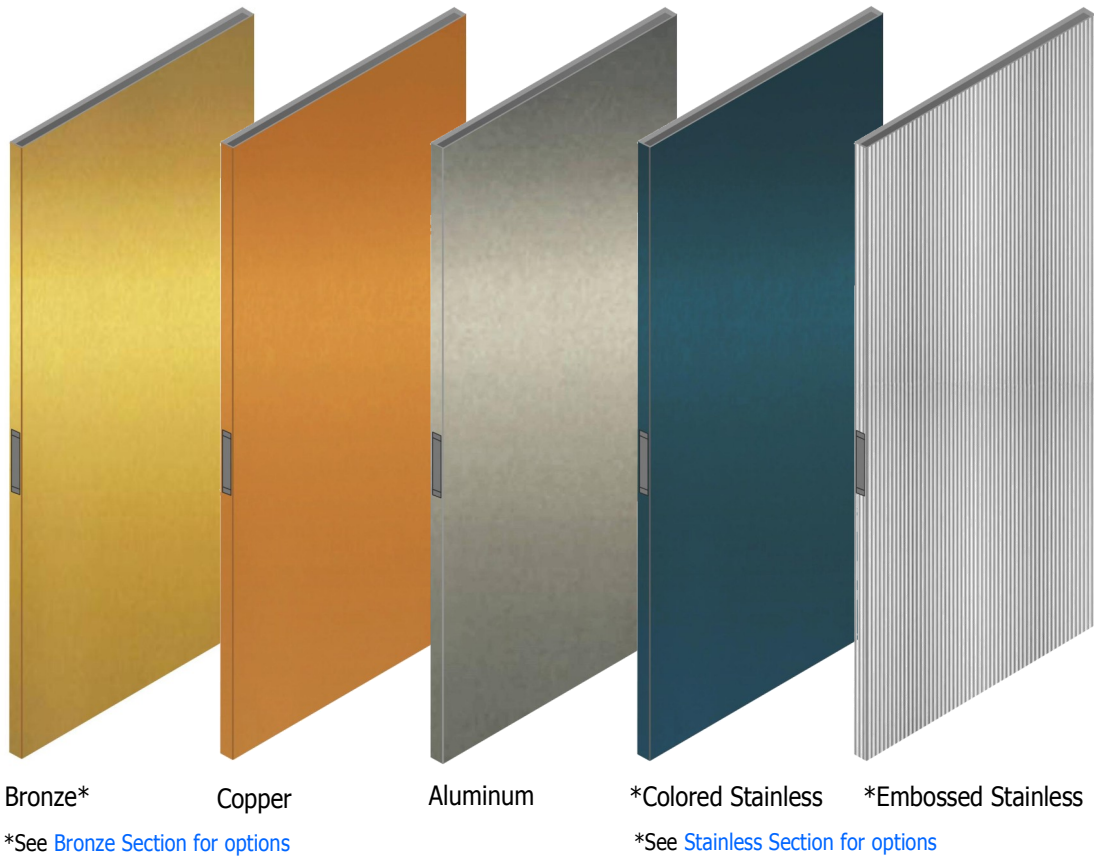
NOTE: Above door data varies depending on specific design criteria



Construction

- True Stile & Rail Construction
- Fully Welded - NO TIE RODS
- All Seams Continuously Welded and Finished Smooth

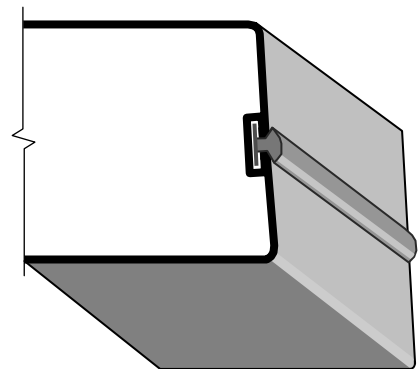




Features

- For all interior and exterior applications
- Clad alloys per customer's specifications
- Available in a variety of configurations, sizes, and styles, with or without glass lites
- Designed for high frequency use without sacrificing aesthetics
- Metals are permanently bonded to substrate, no mechanical fasteners
- Specialty finishes available

Proprietary Air-Tek™ Edge
is standard on all clad doors



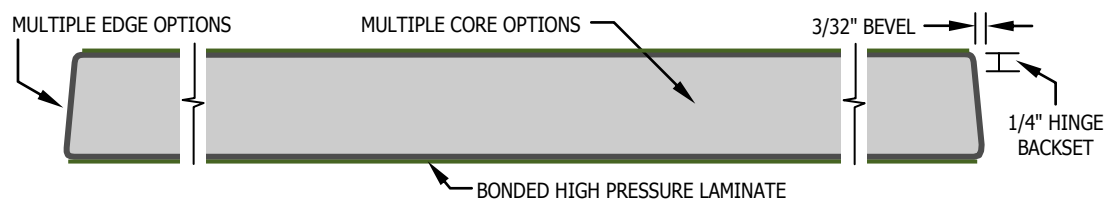
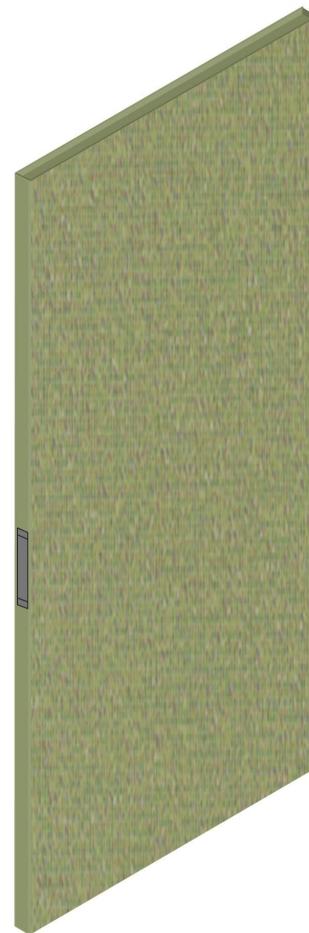
HPL Steel Doors

High Pressure Laminate Faces

Description	HPL Laminate doors are built-to-order, suitable for interior locations.
NAAMM / HMMA	867
ANSI / SDI	II/1, III/1, IV/1 (Open Seam Edge) II/2, III/2 & 3, IV/2 (Seamless Edge) (per ANSI A250.8-2003, Level / Model)
Material	1. Cold Rolled Steel 2. A60 or G90 Galvanized 3. Stainless Steel
Faces	18, 16, 14 or 12 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	1. Welded 3" OC, Seamless 2. Continuous Welded, Seamless 3. Open Seam See Vertical Door Edges
Top / Bottom	16 GA Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA, 1-1/2" X 10" Locks: 11 GA or equal # threads Closers: 14 or 12 GA
Core	Honeycomb, Temperature Rise, Polystyrene
STC	See Sound Control
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
STD Primer	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes
Edge Finish	Factory Finish Painted Vertical Door Edges to Match Laminate

NOTE: Above door data varies depending on specific design criteria

- 1000s of colors and textures to choose from
- Permanently bonded laminate with no exposed fasteners or edge channels
- Hybrid options such as bullet resistant, fire rating, and sound control available

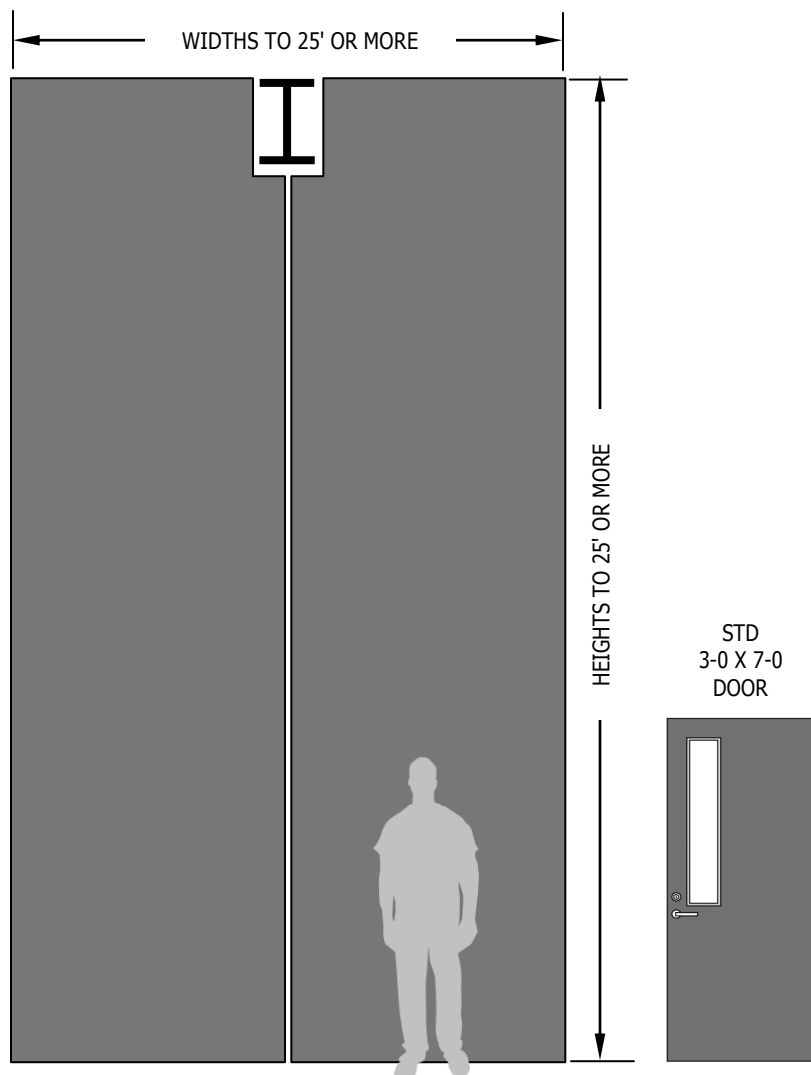



Stiles doors reach new heights...

As a leader in built-to-order doors and frames, Stiles has the experience and technical know-how to build industrial oversized doors for virtually any application including:

- Partition Chamber Doors
- Industrial Monorail Doors
- Oversized Stage / Sound Control Doors
- Specialty Plant Doors

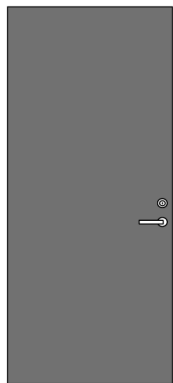
Since each oversized door project is unique, a variety of construction methods, materials, and finish options are employed. Drawing on over three decades of experience, Stiles has the capability to provide you with the right solution for your oversized door project.



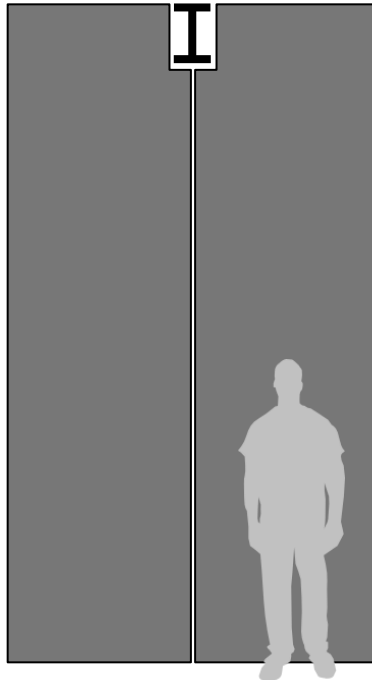
Quick Ship  All Models Available via Quick Ship
See [Quick Ship](#)

F Series Doors

Flush Doors



F



MRD

Limited Quick Ship

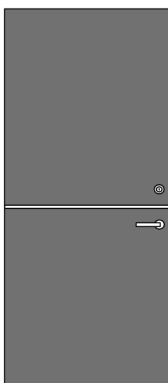
OVERSIZE INDUSTRIAL DOORS

Stiles has the technical know-how and experience to build oversized industrial doors for virtually any application.

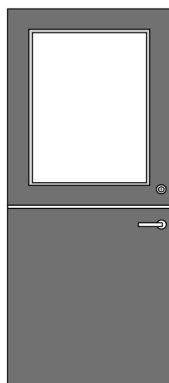
See [D-1.12](#)

D Series Doors

Flush Dutch Doors



D

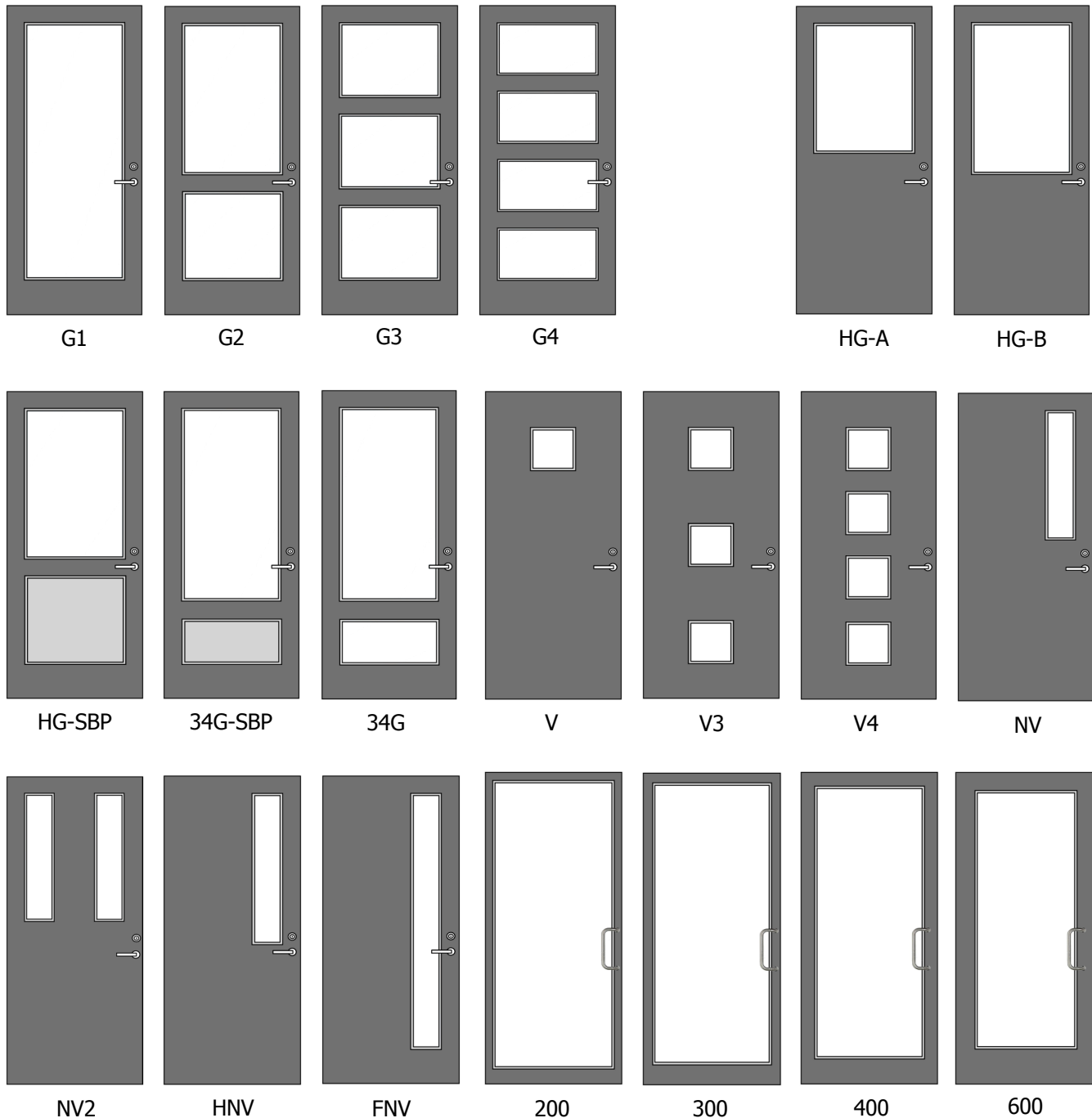


DHG

GLASS + GLAZING

Stiles offers numerous glass and glazing options ranging from factory-installed to loose-lite glass shipments with your order.

See [Factory Assembly](#)



PANEL & GLASS MOULDINGS

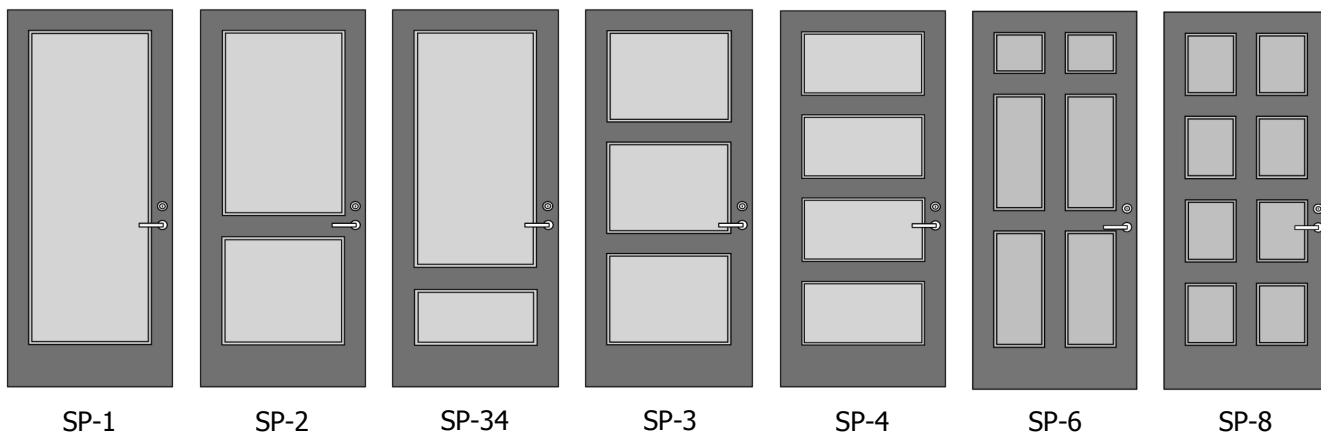
Stiles offers numerous glass and panel moulding options, in addition to a variety of solid panel profiles. See [D-3.0 to 3.1](#)

GLASS + GLAZING

Stiles offers glass and glazing options ranging from factory-installed to loose-lite glass shipments. See [Factory Assembly](#)

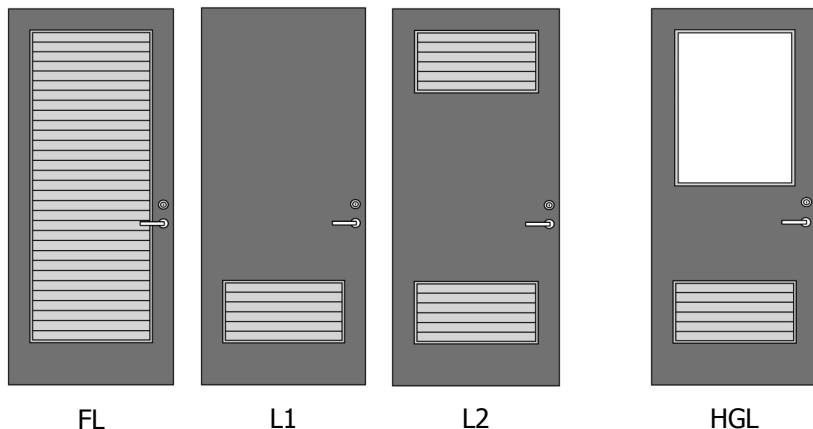
SP Series Door Elevations

Solid Panel with Flush or Raised Mouldings



LV Series Door Elevations

Flush Doors with Louver Vents



PANEL & GLASS MOULDINGS

Stiles offers numerous glass and panel moulding options, in addition to a variety of solid panel profiles.

See [D-3.0 to 3.1](#)

GLASS + GLAZING

Stiles offers numerous glass and glazing options ranging from factory-installed to loose-lite glass shipments with your order.

See [Factory Assembly](#)

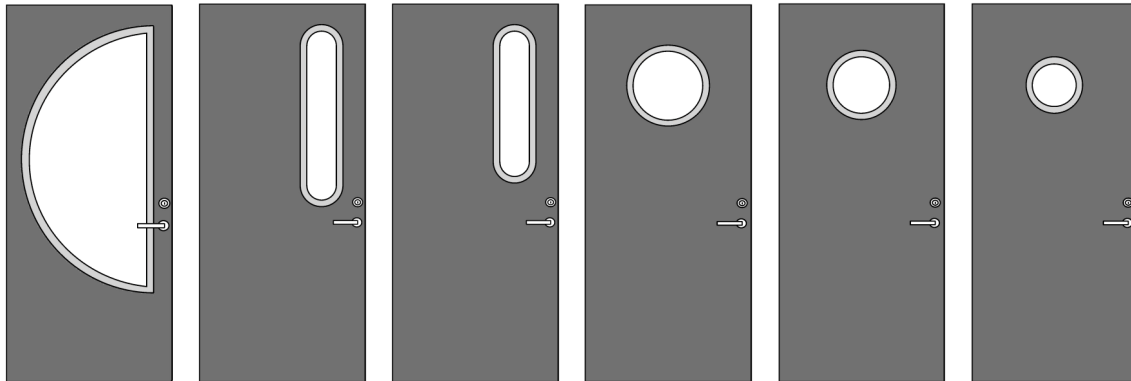
LOUVERS

Stiles offers numerous louver options including fire rated.

See [Louvers 3.5](#)

QUICK SHIP NOTE / LV SERIES DOORS

Doors may be shipped "open" if louvers are not available at time of shipment.



HGR

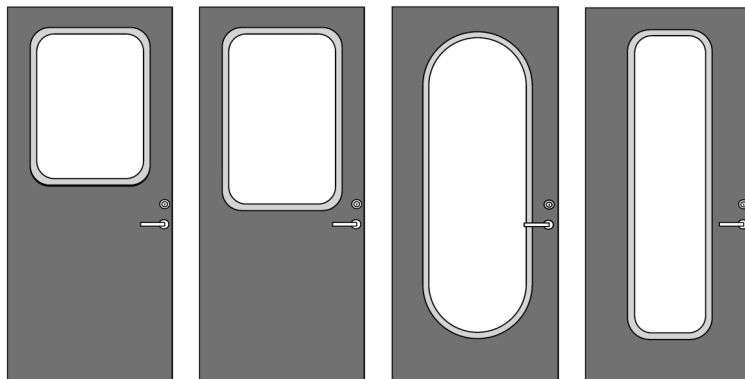
NVR-A

NVR-B

FRV-24

FRV-18

FRV-12

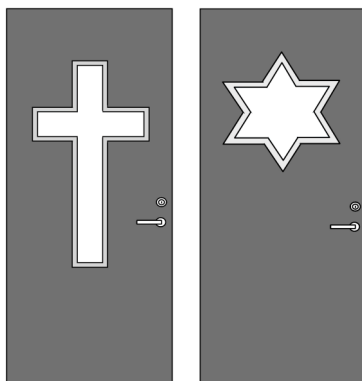


HGR-1

HGR-2

FGR-1

FGR-2



CRS

STD

(SPECIAL)

(SPECIAL)

Limited Quick Ship

Limited Quick Ship

GLASS + GLAZING

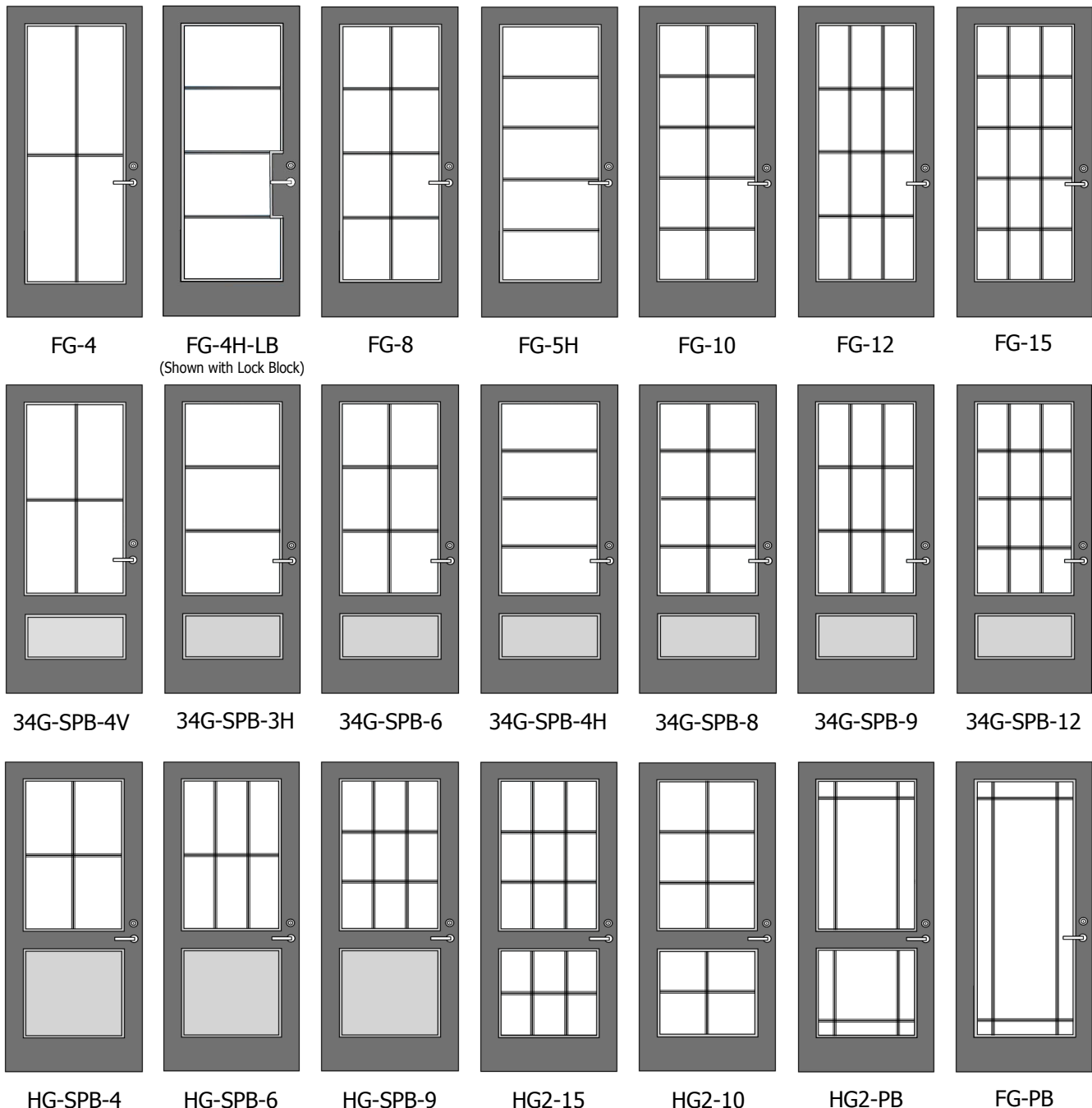
Stiles offers numerous glass and glazing options ranging from factory-installed to loose-lite glass shipments with your order.

See [Factory Assembly](#)

QUICK SHIP NOTE / VL SERIES DOORS

Doors may be shipped "open" if lite kits are not available at time of shipment.

NOTE: Stiles manufactures custom hot-rolled steel windows and doors to historical specifications.



PANEL & GLASS MOULDINGS

Stiles offers numerous glass and panel moulding options, in addition to a variety of solid panel profiles.

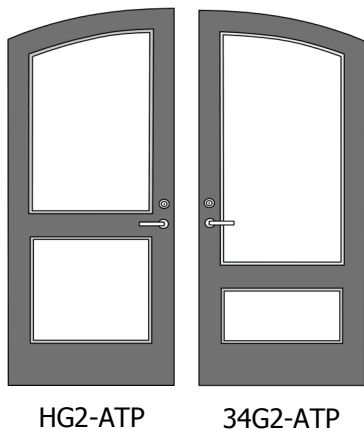
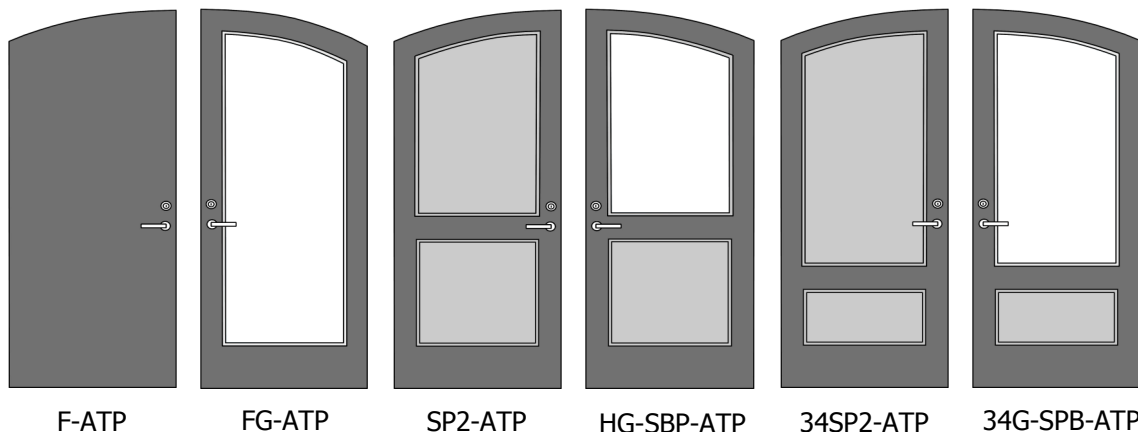
See [D-3.0](#) to [3.2](#)

LOCK BLOCKS

Available on selected models.
Contact Factory for Details.

AT Series Door Elevations

Arch Top Doors with Glass Lites & Solid Panel Combinations



PANEL & GLASS MOULDINGS

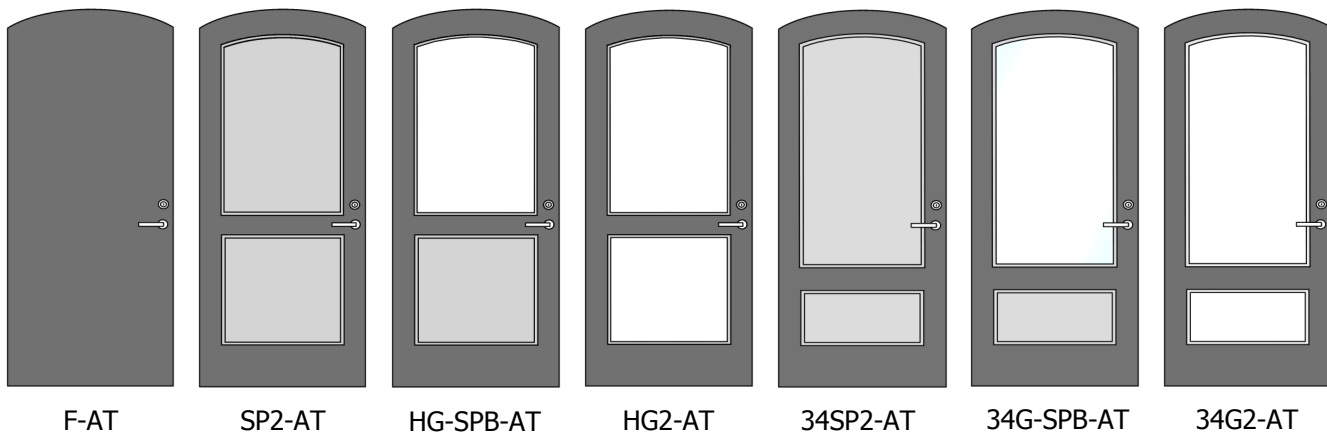
Stiles offers numerous glass and panel moulding options, in addition to a variety of solid panel profiles.

See [D-3.0 to 3.1](#)

GLASS + GLAZING

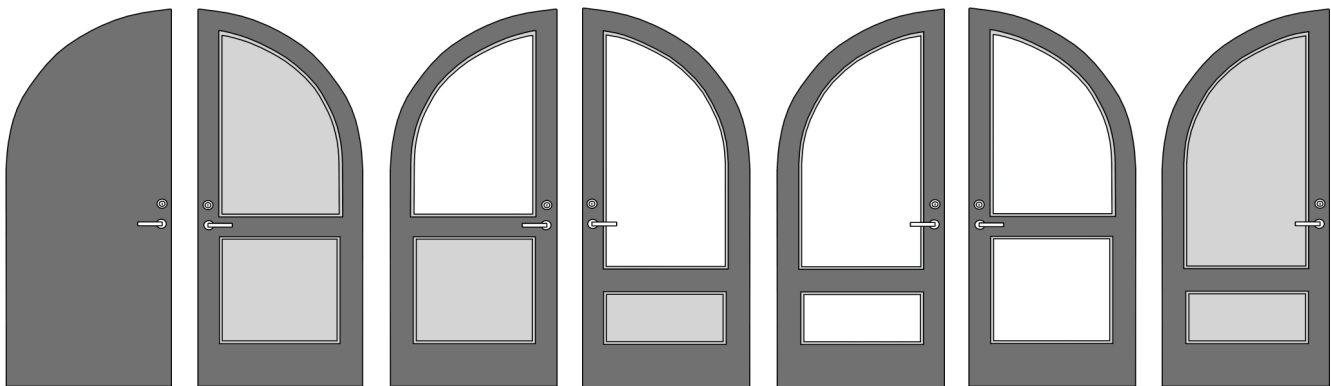
Stiles offers numerous glass and glazing options ranging from factory-installed to loose-lite glass shipments with your order.

See [Factory Assembly](#)



RT Series Door Elevations

Radius Top Doors with Glass Lites & Solid Panel Combinations



F-RTP

SP2-RTP

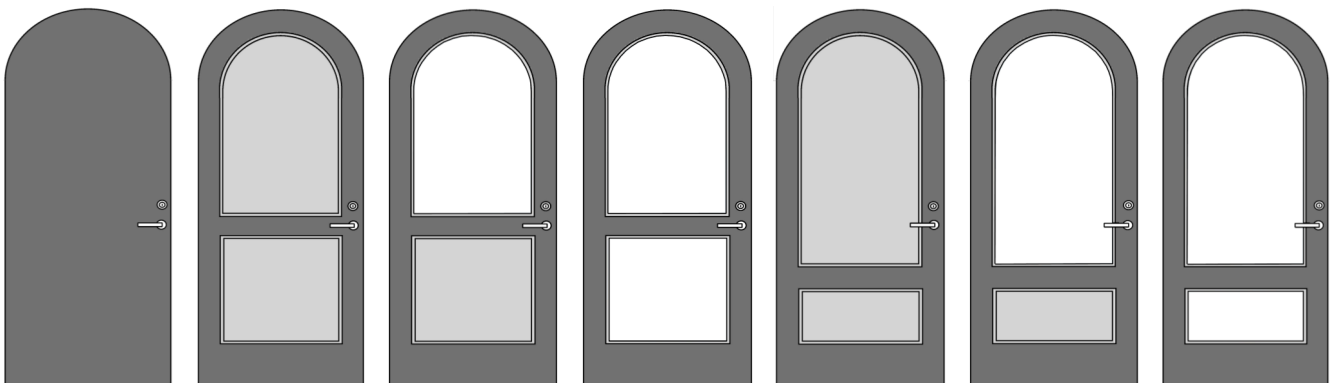
HG-SBP-RTP

34G-BP-RTP

34G2-RTP

HG2-RTP

34SP2-RTP



F-RT

SP2-RT

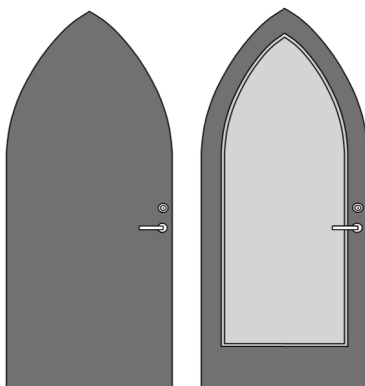
HG-SPB-RT

HG2-RT

34P2-RT

34G-BP-RT

HG2-RT



GA-F

GA-SP1

PANEL & GLASS MOULDINGS

Stiles offers numerous glass and panel moulding options, in addition to a variety of solid panel profiles.

See [PD-3.0 to 3.1](#)

GLASS + GLAZING

Stiles offers numerous glass and glazing options ranging from factory-installed to loose-lite glass shipments with your order.

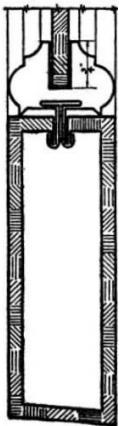
See [Factory Assembly](#)

Stiles manufactures doors and windows to original historical specifications for any type of building. Our capability in authentic replication includes matching of period profiles, materials, and finishes.

We work from original details, photographs, or even actual samples of products.

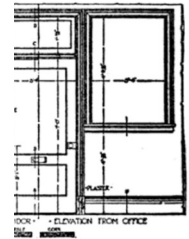
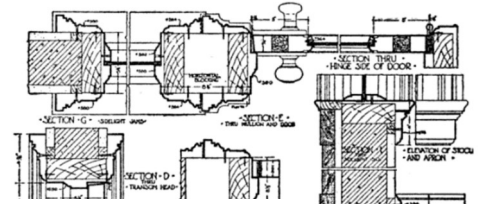
In addition to traditional stile and rail panel doors, Stiles manufactures historical hot-rolled narrow profile steel windows and doors. We work in cold-rolled steel, galvanized, stainless steel, and bronze alloys, and offer glass, glazing and hardware packages.

We have completed historical projects including office buildings, industrial lofts, schools, museums, government buildings and churches.



Historical Replication

Representing all Architectural Periods



Historical Products

- Traditional Hot-Rolled Steel Windows and Doors
- Historical Panel and Glass Lite Doors
- Period Window Systems, Fixed and Operable
- Monumental Entrances
- Restoration Glass
- Period Hardware

Materials

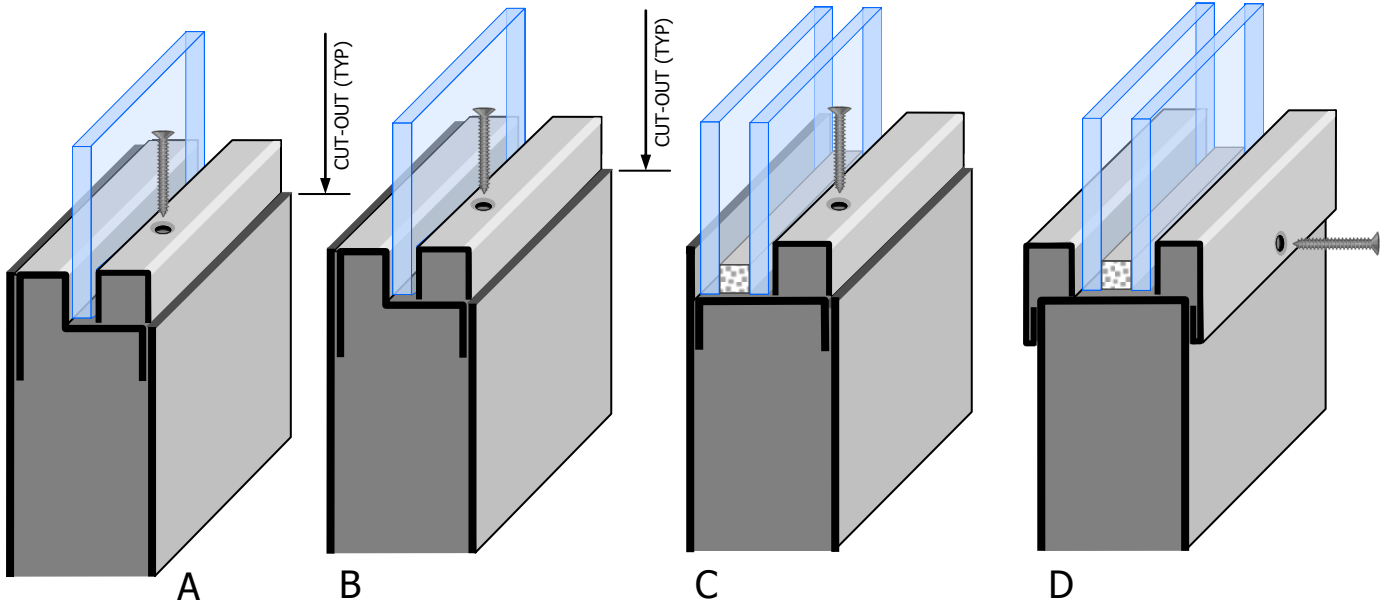
- Hot-Rolled Steel Sections
- Cold-Rolled and A60 Galvanized Steel
- Stainless Steel
- Bronze
- Copper

Services

- Historical Analysis & Design Consultation
- Engineering
- Finish Painting
- Metal Textures and Abraded Finishes

Stiles also offers moulding configurations not shown below. Contact factory for more information.

NOTE: Removable glass stops are typically installed to the interior of the building.



1-3/4" Door
5/8" X 5/8" Glass Stops
1/4" Glass

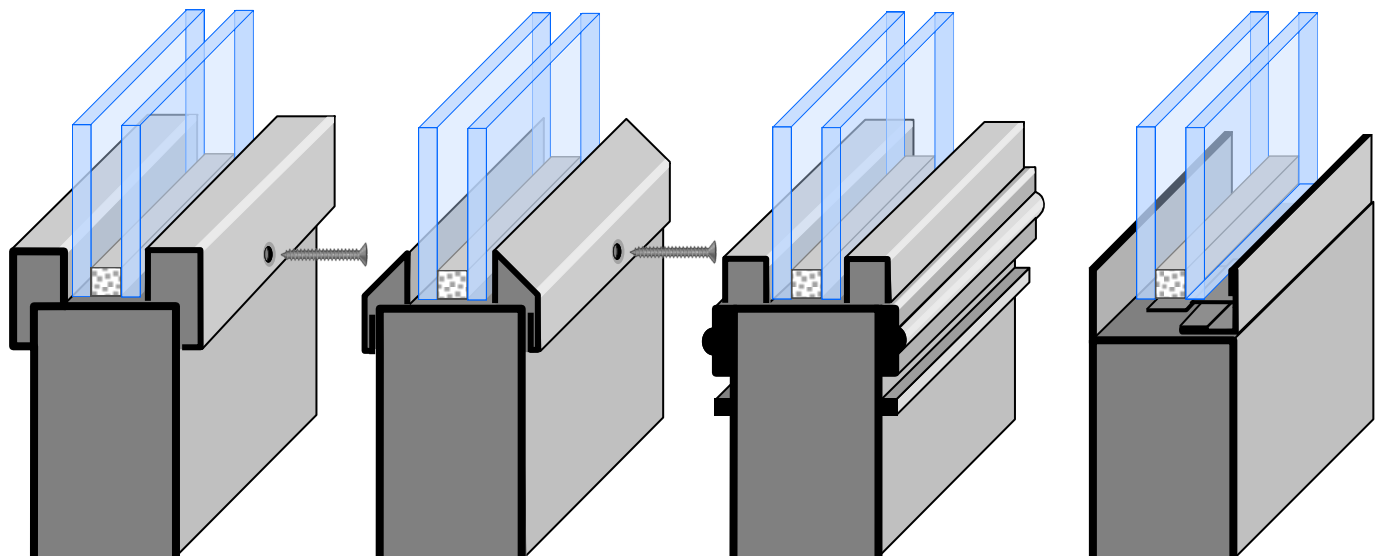
*Concealed Fasteners Available

1-3/4" Door
7/16" X 5/8" Glass Stops
Up to 5/8" Glass

1-3/4" Door
5/8" X 5/8" Glass Stops
3/4" thick Insulated Glass

*Concealed Fasteners Available

1-3/4" Door
7/16" X 1-1/4" Glass Stops
1" Insulated Glass



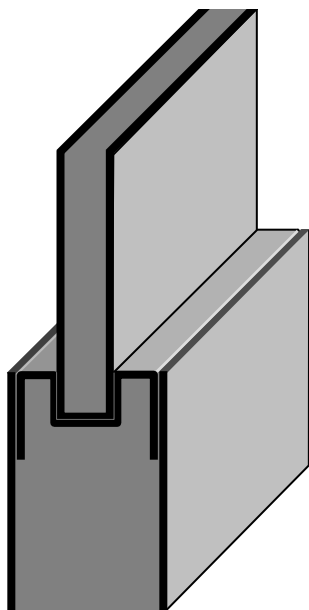
E
1-3/4" Door
9/16" X 1-1/4" Glass Stops
1" Insulated Glass

F
1-3/4" Door
7/16" X 1-1/4" Glass Stops
1" Insulated Glass

G (Special)
1-3/4" Door
1/2" X 1/2" Glass Stops
(no exposed fasteners)
Solid Stock Moulding Accents
1" Insulated Glass

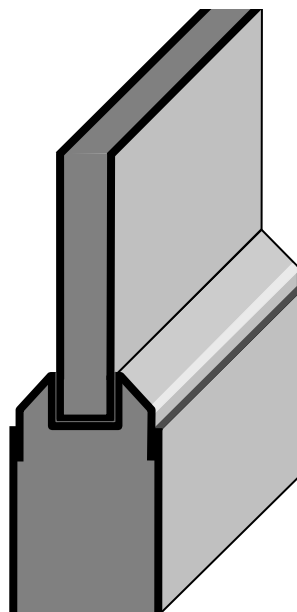
H
1-3/4" Door
3/4" Flush Clip Stops
(no exposed fasteners)
1" Insulated Glass

Stiles also offers configurations not shown below. Contact factory for more information.



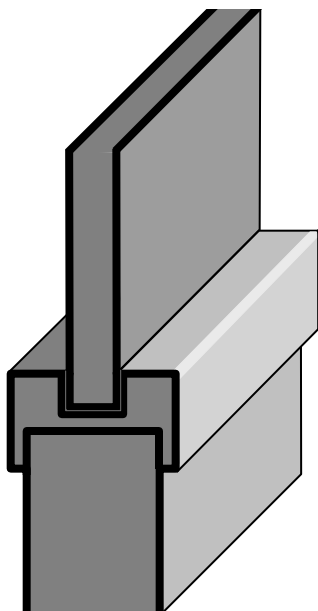
FP-A (STD)

1-3/4" Door
Square Mouldings, Various Sizes
Flat Panel, Various Thicknesses



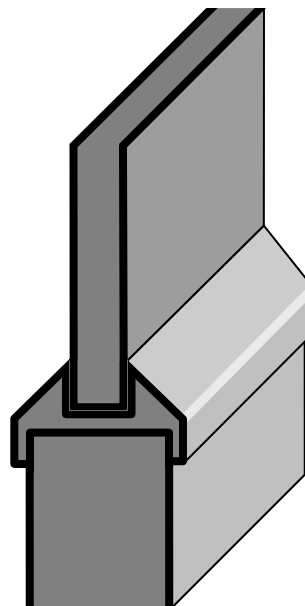
FP-J

1-3/4" Door
Sloped Mouldings, Various Sizes
Flat Panel, Various Thicknesses



FP-E

1-3/4" Door
Square Mouldings, Various Sizes
Flat Panel, Various Thicknesses



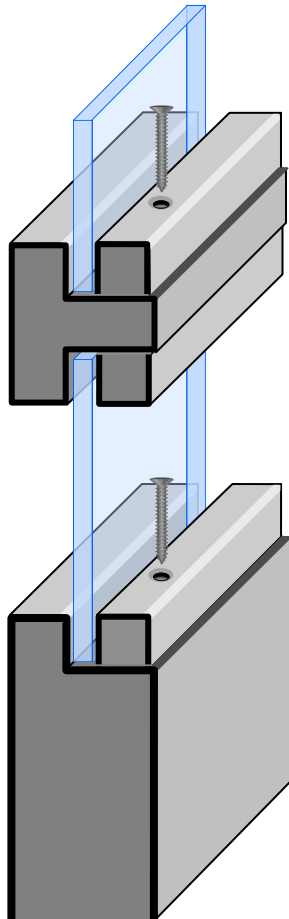
FP-F

1-3/4" Door
Sloped Mouldings, Various Sizes
Flat Panel, Various Thicknesses

Stiles also offers muntin configurations not shown below. Contact factory for more information.

NOTE: Removable glass stops are typically installed to the interior of the building.

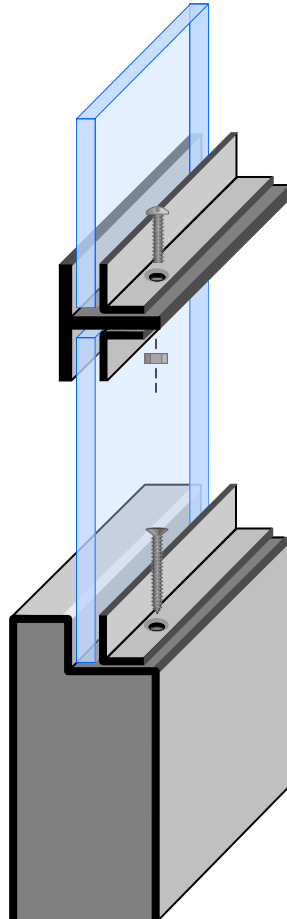
True Divided Lite Muntin



A

1-3/4" Door
5/8" X 5/8" Glass Stops
1/4" Glass
**Concealed Fasteners Available*

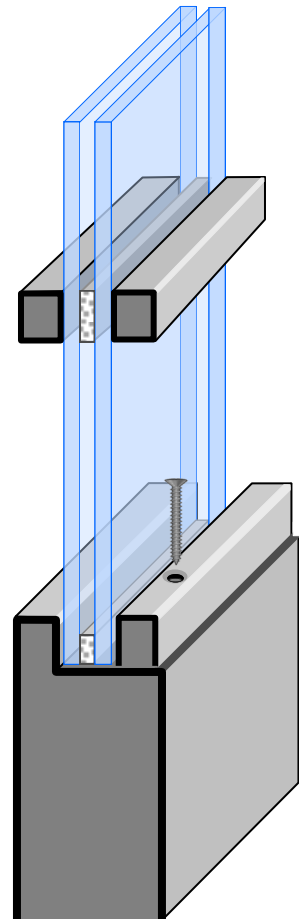
Traditional True Divided Lite Muntin



B

1-3/4" Door
1/2" X 1/2" Angle Glass Stops
1-1/4" X 1-1/4" T Bar
1/4" Glass
**Concealed Fasteners Available*
**Insulated Glass Available*
**Historical Profiles Available*

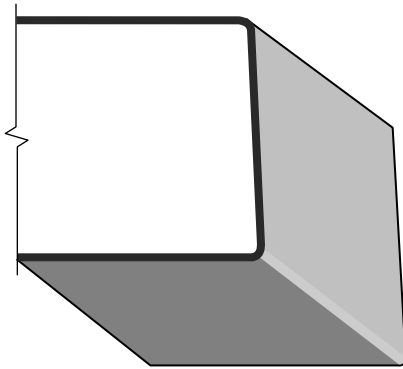
Simulated Divided Lite Bar (SDL)



C

1-3/4" Door
1/2" X 1/2" Square SDL Bar
Internal Glass Spacer
3/4" Insulated Glass
**Various SDL Profile Options*
**Single-Glazed Glass Available*
**Historical Profiles Available*

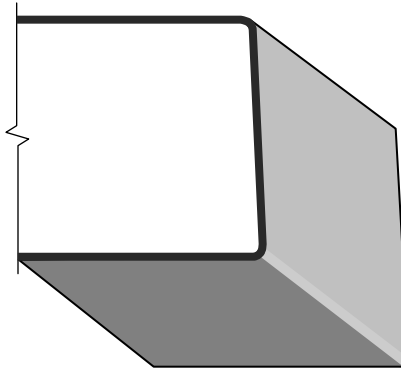
Vertical Door Edge Options



A

Welded Seamless Edge

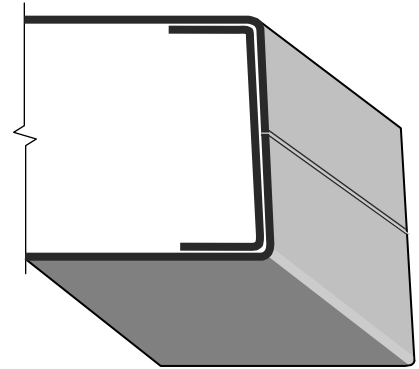
Vertical stitch welds 3" OC, filled and finished smooth, seamless



B

Continuous Welded Seamless Edge

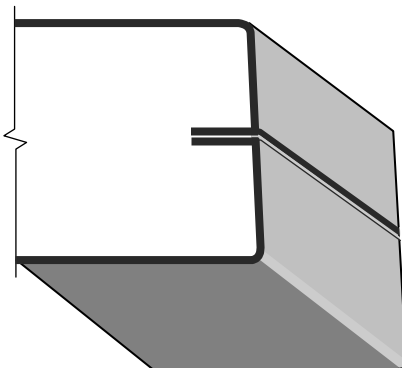
Continuous vertical weld, finished smooth



C

Hairline Seam Edge

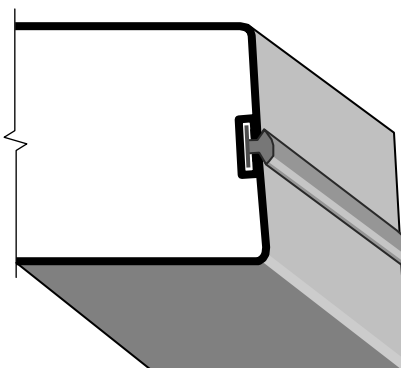
Center of door edge face



D

Open Seam Edge

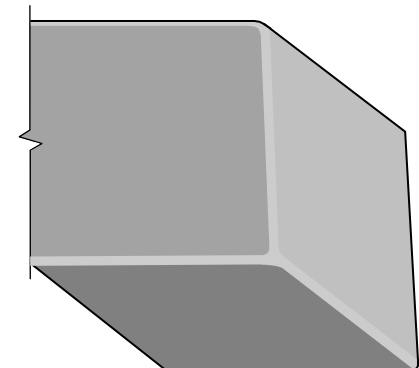
Center of door edge face



E

Air-Tek™ Edge Seal

Integral weather seal at door edge



F

Hermetically Sealed

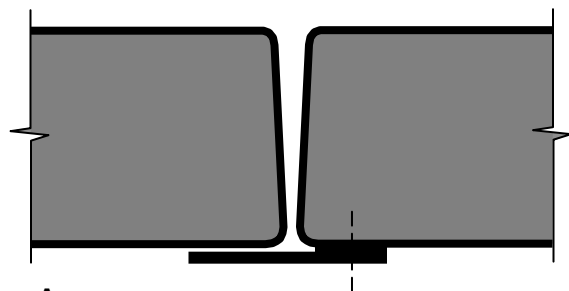
Lab-Tek™ continuously welded all 4 edges, including door top and bottom



Bacteria
Resistant



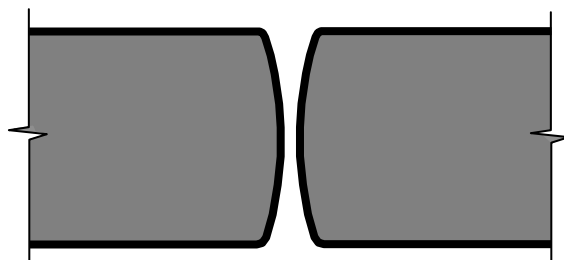
Vermin
Proof



A

V-Bevel with Flat Astragal

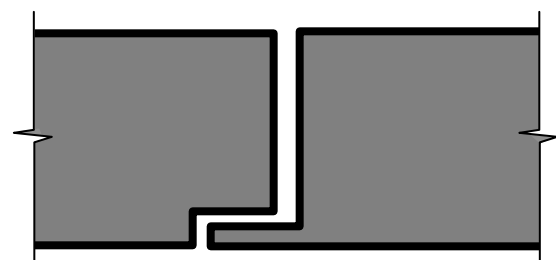
With Applied Flat Astragal



B

Bullnose

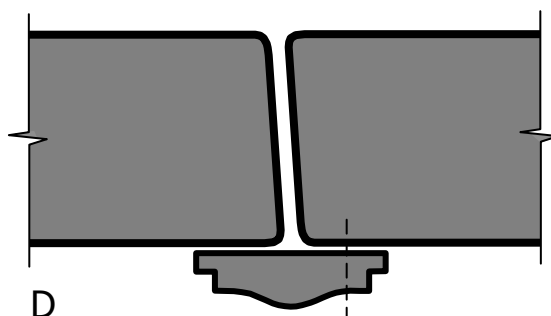
Used on Double-Acting and Center Pivoted Doors



C

Rabbeted

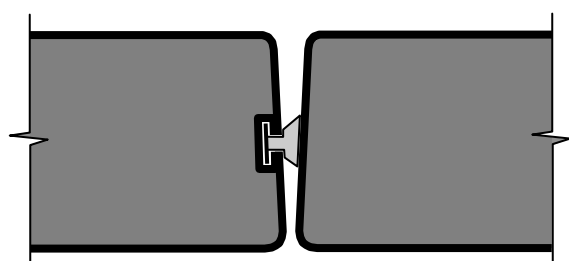
May be used on Double-Egress Doors



D

Parallel Bevel

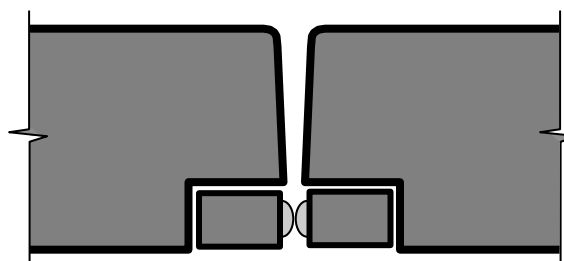
With Special Astragal



E

Integral Pile Seal

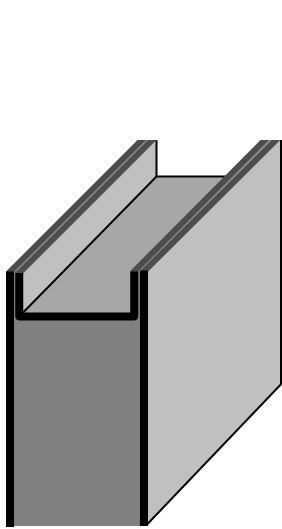
Stiles Proprietary Air-Tek™ Vertical Edge Seal System for Single Doors or Pairs



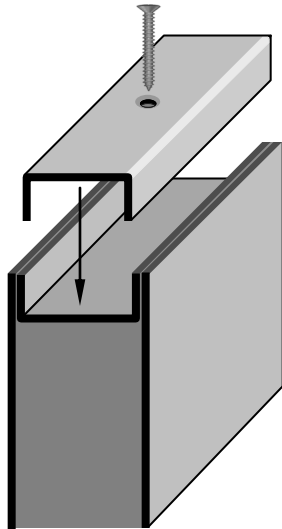
F

Recessed Adjustable Astragal

Surface-Mounted Type Also Available



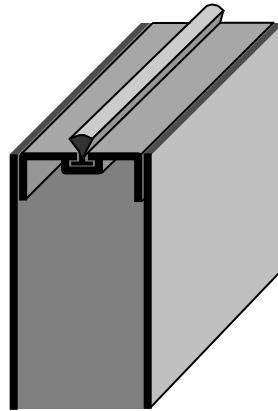
A
Standard Inverted
U-Channel



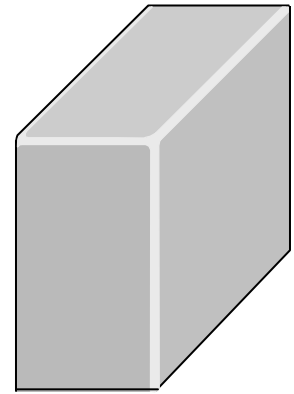
B
U-Channel Cap
**May be wet sealed to
eliminate water penetration*



Waterproof



C
Air-Tek™
Integral cut pile weather strip
in door top and active vertical
door edge



D
Hermetically Sealed
Lab-Tek™ continuously welded
all 4 edges, including door top
and bottom
See [Lab-Tek Door D-1.4](#)

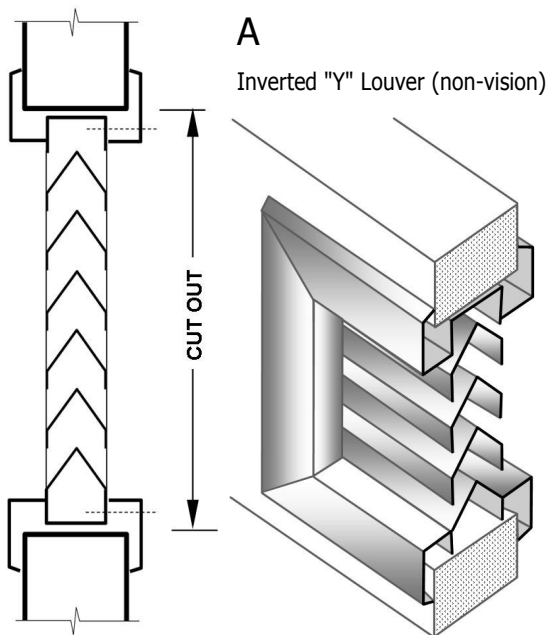


Bacteria
Resistant

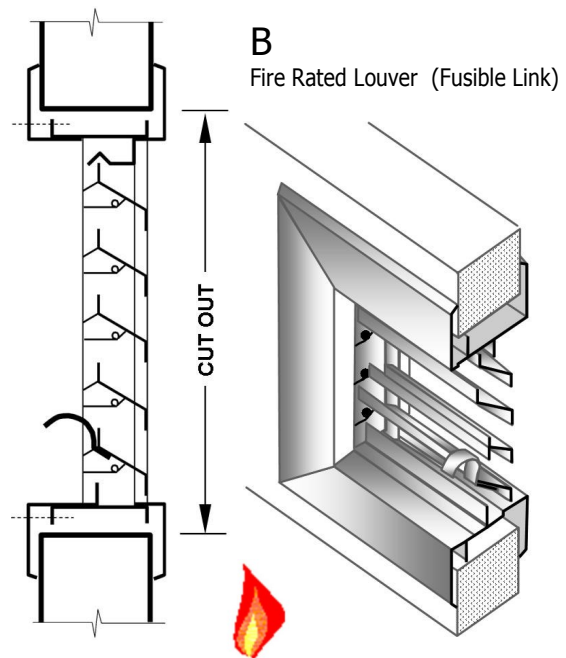


Vermin
Proof

Louvers



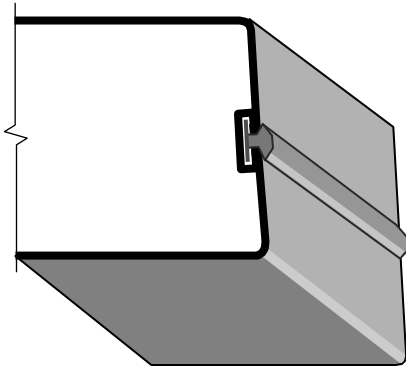
A
Inverted "Y" Louver (non-vision)



B
Fire Rated Louver (Fusible Link)

FIRE RATED

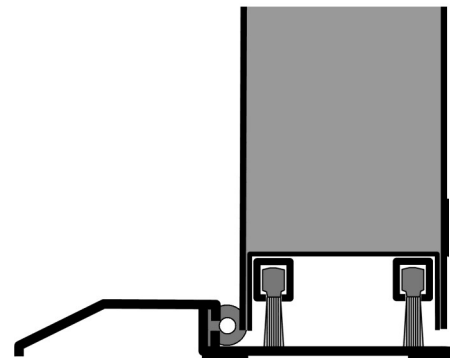
Stiles offers numerous options for weatherization designed to satisfy your specific project requirements, including:



A

Air-Tek™ Door Edge Seals

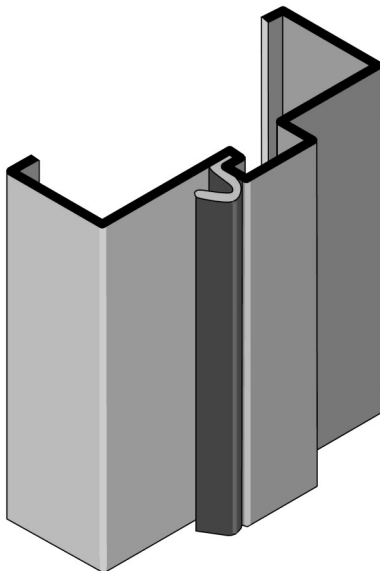
Stiles proprietary Air-Tek™ cut pile replaceable edge seals, available for both single doors and pairs, function as a primary dust and air barrier for active door edges and door tops.



B

Threshold Assemblies

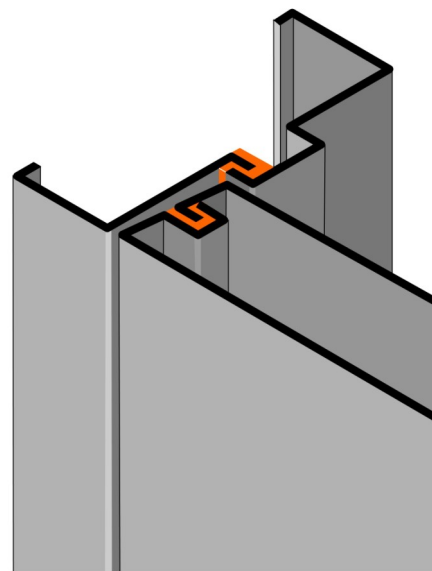
ADA compliant thresholds in all sizes, materials, functions and profiles, with replaceable seals. Dual door bottom sweeps in both brush and vinyl blade configurations, in addition to automatic door bottom seals.



C

Seal-Tek™ Weather Seal System

Stiles proprietary Seal-Tek™ frames are available with replaceable kerf weather seals that are UL10C listed and available in bronze, white, black, gray, and beige. *Seal is installed on the job after finish paint.

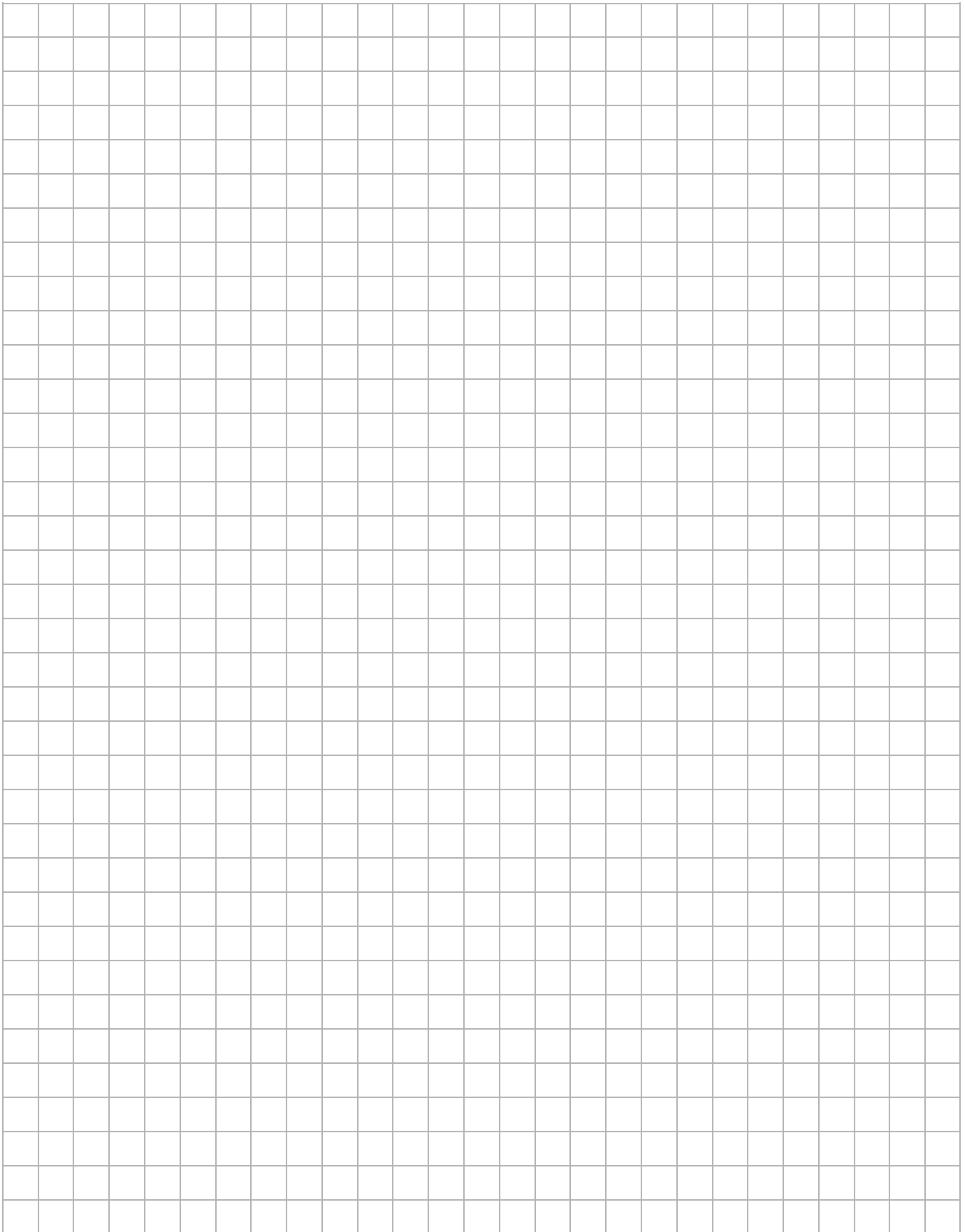


D

Thermal Breaks

Thermal breaks are available for both doors and frames for use in extreme environments, greatly reducing heat and cold transfer.

Notes



STEEL DOORS AND FRAMES

Section 08 1110

PART I GENERAL

1.01 SUMMARY:

- A. Description: This section includes Steel Doors, Frames, Sidelites, Transom and Window Frames where shown on the drawings and as specified herein.
- B. Related work not included in this section:
 - 1. Builders finish hardware including gaskets and weather-stripping.
 - 2. Glass and glazing.
 - 3. Sealant and caulking at joints

1.02 QUALITY ASSURANCE:

- a. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association
 - 2. ANSI, American National Standards Institute
 - 3. ASTM, American Society for Testing and Materials
 - 4. ADA, Americans with Disabilities Act
 - 5. NFPA 80, National Fire Protection Association
 - 6. NAAMM/HMMA, National Association of Architectural Metals Manufacturers
 - 7. UL 10C, Standards for Positive Fire Tests of Door Assemblies.
- B. Manufacturer shall have been regularly engaged in manufacturing steel door, frames and window assemblies for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- C. Provide current test reports to substantiate that all products have been tested to meet the following criteria.
 - 1. Fire Labeled doors and frames, ASTM E2074, UBC 7.2, UL 10C
 - 2. Performance test, ANSI A250.4
 - 3. Wind Load, Deflection / ASTM E330, Air Infiltration / ASTM E283, Water Penetration / ASTM E331
- D. Allowable Tolerances as stated in NAAMM/HMMA Technical Manual.

1.03 SUBMITTALS: Submittal Drawings: Show door and frame elevations and sections. Show listing of opening descriptions including locations, gages, and anchors. Show location and details of all openings. Include test reports on the following: Cycle test, Air and Water Infiltration.

1.04 WARRANTY: All hollow metal work shall be warranted from defects in workmanship and quality for a period of three (3) years from shipment.

PART II PRODUCTS

2.01 DOORS

- A. The Steel Doors are based on Stiles Custom Metal, Inc. ([see www.stilesdoor.com](http://www.stilesdoor.com)) and shall be of the types and sizes shown on the approved submittal drawings and shall be constructed in accordance with the specifications.
 - 1. Vertical Edges: Face sheets shall be joined at center of vertical edges and continuously welded full height of the door with no visible seams on their faces or vertical edges. Welds shall be finished smooth. Single acting doors - beveled 1/8" in 2" profile. At exterior pair openings the meeting stiles shall be furnished with the Air-Tek™, continuous, integral pile weather strip. Adhesive or screw applied weather strip shall not be accepted.
 - 2. Integral Astragal: Where required astragals shall be formed as an integral part of the door skin with corresponding recessed area formed into adjacent door. Surface mounted flat plate or Z shaped astragals shall not be accepted.
 - 3. Door thickness shall be 1-3/4". Doors shall be neat in appearance and free from warpage or buckle. Edge bends shall be true and straight and of minimum radius for the gage of metal used.
 - 4. Materials: Doors shall be made of commercial quality, cold-rolled steel per ASTM A1008 / A1008M.
 - a. Interior doors: Face sheets shall be 0.042 in. (18 gage) min. thickness cold rolled steel.
 - b. Exterior doors: Face sheets shall be 0.053 in. (16 gage) min. thickness with zinc coating A 60.

STEEL DOORS AND FRAMES (continued)

5. Door Core Model Options: (choose one) (see www.stilesdoor.com)

[[Steel Stiffened](#)]: 22 gage min., continuous, vertical, formed steel sections spanning the full thickness of the interior space between door faces. Stiffeners spaced so that the vertical interior webs shall be no more than 6" apart. Spot welded maximum of 4" o.c. vertically. Spot welds shall be sanded smooth to eliminate spot weld marks as much as possible. Spaces between stiffeners shall be filled with: (choose one) [[Fiberglass Batt Insulation](#)] or [[Recycled Cotton Batt Insulation](#)].

[[Honeycomb](#)]: "Kraft" paper, hexagonal cell, fully faced on both sides. Open cell un-faced honeycomb shall not be acceptable. Core and inside of door skins shall be completely covered with contact adhesive achieving 100% bond.

[[Temperature Rise Core](#)]: Dense Mineral Core rated (choose one) [[250° F / 121° C](#)] or [[450° F / 232° C](#)] and shall be laminated to the inside of the door skins with contact adhesive achieving 100% bond.

[[Polyurethane Core](#)]: Rigid, cellular type, board conforming to ASTM D1622, 1.8 pounds per cubic foot density min., containing no urea formaldehyde resins. Option: [[Polyisocyanurate](#)], 2.0 pounds per cubic foot density min., containing no urea formaldehyde resins. Core shall be laminated to the inside of the door skins with contact adhesive achieving 100% bond.

[[Polystyrene Door Core](#)]: Rigid, extruded, closed cell board, 1 pound per cubic foot density min., conforming to ASATM C578, Type 1. Core shall be laminated to the inside of the door skins with contact adhesive achieving 100% bond.

6. The top and bottom edges shall be closed with a continuous channel, 16 gage minimum, spot welded to both face sheets maximum 4" o.c. Top of exterior doors shall be fitted with an additional flush closing channel and sealed water-tight.
7. Door opening tag number shall be permanently engraved into the center hinge reinforcement using a programmable engraver. The engraving shall be deep enough to be read after the hinge reinforcement bar is painted. The use of paper stickers only is not acceptable.
8. Glass moldings and stops: Where specified, doors shall be provided with internal channel type, flush glass moldings, to secure glazing in accordance with glass sizes and thickness shown on approved submittal drawings. Molding channels minimum 18 gauge steel, securely spot welded, maximum 4" o.c., to the inside face of the door skin. Removable glass channel stops shall be minimum 18 gage, A60 galvanized steel, butted at corner joints, secured to the door with zinc plated #8 oval head, countersunk, sheet metal screws. Door lights that are cut out of the door after the door is built are not acceptable. Externally mounted lite kits that protrude from the door face are not acceptable.
9. Louvers: Louvers shall be sight proof, with: (choose one) [[embossed, security type kick proof](#)] or [[V or Y type](#)] (see www.stilesdoor.com) blades, minimum 18 gage, secured to door with sheet metal screws. Louvers at exterior locations shall be A60 galvanized and be provided with Insect screens. Door skins at louver cutouts shall be reinforced with continuous channel reinforcement, full door thickness and perimeter, spot welded to door face 4" o.c.
10. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth.

2.02 STEEL PANELS: Steel panels shall be made of the same material and construction and finished in the same way as specified for doors.

2.03 FRAMES

- A. Provisions of this section are applicable to door frames, transom lites, sidelites and window assemblies. Materials: Frames shall be constructed of 16 gage, 0.053 in. (1.3mm) minimum thickness. Exterior frames shall have an A60 zinc coating.

STEEL DOORS AND FRAMES (continued)

2. Construction: Frames shall be welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header; mullion and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings. Mitered corner joints shall have all contact edges closed tight with faces mitered and stops butted. Faces and soffits shall be continuously welded. The use of gussets or splice plates shall not be acceptable. All other joints shall have faces continuously welded. Faces shall be finished smooth. Mineral fillers are not permitted.
3. Exterior windows: Window installer and glazier shall follow Stiles instructions to prevent air and water penetration.
4. Exterior door frames shall have Seal-Tek™ integral weather-strip kerf provided. Adhesive or screw applied weather-strip shall not be accepted. (see www.stilesdoor.com)
5. When shipping limitations so dictate, frames for large openings shall be fabricated in sections designated for assembly in the field by installer. Field joints shall be made in accordance with approved submittal drawings and shall be field welded by installer.

2.04 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface mounted, anchor hinges, or non-template mortise hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM/HMMA 830 and 861.

2.05 FINISH: Doors and frames shall be treated to insure maximum paint adhesion and shall be painted on all accessible surfaces with one coat of a rust inhibitive, modified Alkyd, Zinc compound, gray primer that meets or exceeds all ANSI A250.10-98 performance criteria. Primer coat shall be fully cured prior to shipment. Red or brown colored primers shall not be permitted.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

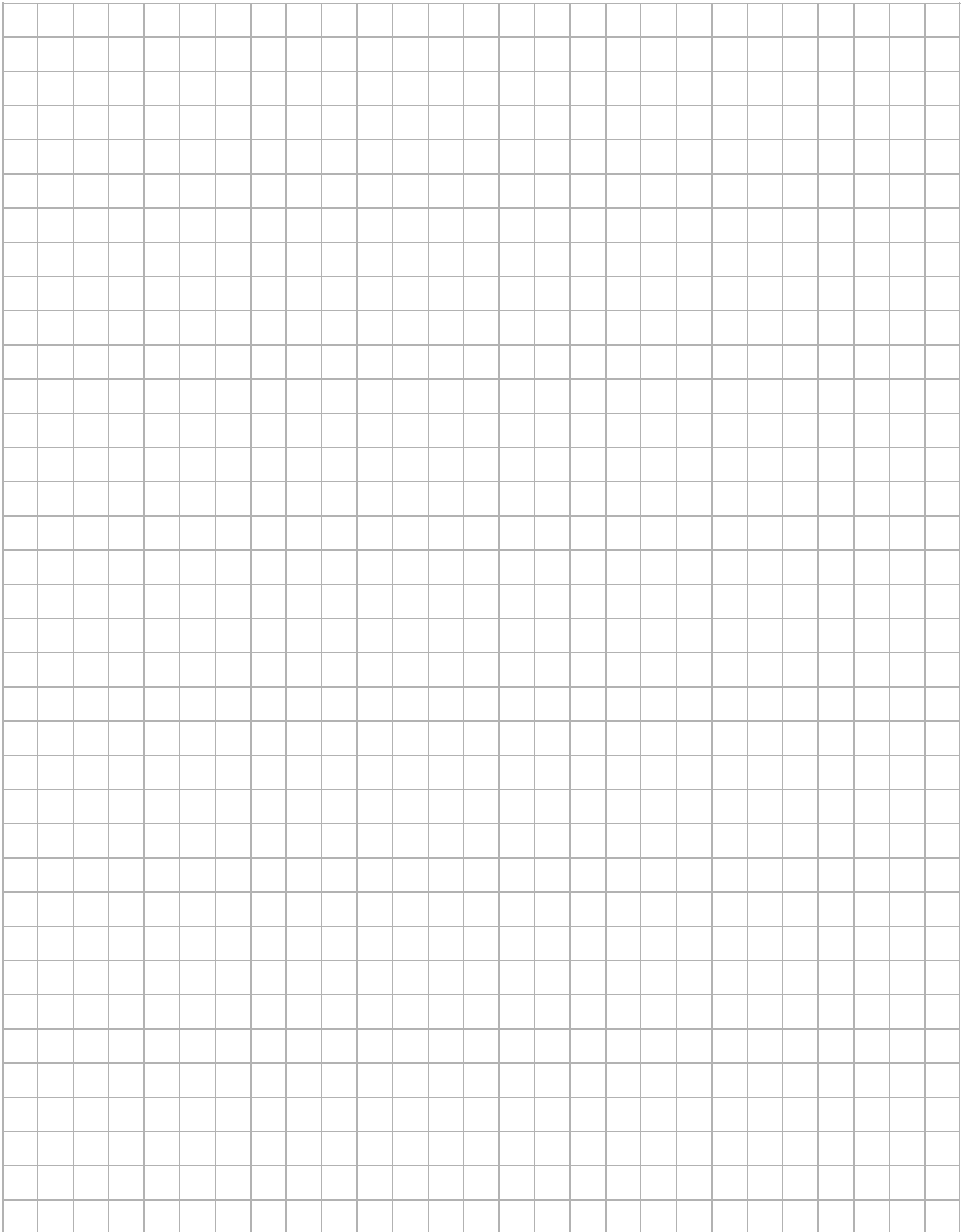
- A. Deliver and store materials to prevent damaging and marring finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful surfaces and from careless handling, storage or machining.

3.03 INSTALLATION:

- A. It shall be the responsibility of the installation contractor to perform the following:
- B. Installation and tolerances shall meet the requirements of HMMA 840 and as further specified here in. Prior to installation, all frames must be checked and corrected for size, swing, squareness, alignment, twist and plumbness.
- C. Any grout or other bonding material shall promptly be cleaned off of frames or doors following installation. Hollow metal surfaces shall be kept free of grout, tar, or other bonding material or sealer.
- D. Plaster guards and junction boxes are intended to protect hardware mortises and tapped mounting holes from masonry grout of 4" maximum slump consistency which is hand troweled in place. Grouting materials such as gypsum products which require air to dry (cure) shall not be used in any closed section, such as a mullion.
- E. Hardware must be applied in accordance with hardware manufacturer's templates and instructions.
- F. Primed or painted surfaces which have been scratched or otherwise marred during installation including field welding and/or cleaning shall be promptly finished smooth, cleaned, treated for maximum paint adhesion and touched up with a rust inhibitive primer.

End of Section

Notes



Lab-Tek™ STEEL DOORS AND FRAMES**Section 08 1110****PART I GENERAL****1.01 SUMMARY**

- A. Description: This section includes Steel Doors, Frames, Sidelites, Transom and Window Frames where shown on the drawings and as specified herein.
- B. Related work not included in this section:.
 - 1. Builders finish hardware including gaskets and weather-stripping.
 - 2. Glass and glazing.
 - 3. Sealant and caulking at joints.

1.02 QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association.
 - 2. ANSI, American National Standards Institute.
 - 3. ASTM, American Society for Testing and Materials.
 - 4. ADA, Americans with Disabilities Act.
 - 5. NFPA 80, National Fire Protection Association
 - 6. NAAMM/HMMA, National Association of Architectural Metals Manufacturers.
 - 7. UL 10C, Standards for Positive Fire Tests of Door Assemblies.
- B. Manufacturer shall have been regularly engaged in manufacturing steel door, frames and window assemblies for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- C. Provide current test reports to substantiate that all products have been tested to meet the following criteria.
 - 1. Fire Labeled doors and frames, ASTM E2074, UBC 7.2, UL 10C
 - 2. Performance test, ANSI A250.4
- D. Allowable Tolerances as stated in NAAMM/HMMA Technical Manual.

1.03 SUBMITTALS: Submittal Drawings: Show door and frame elevations and sections. Show listing of opening descriptions including locations, gages, and anchors. Show location and details of all openings. Include test reports on the following: Cycle test, Air and Water Infiltration.

1.04 WARRANTY: All hollow metal work shall be warranted from defects in workmanship and quality for a period of three (3) years from shipment.

PART II PRODUCTS**2.01 DOORS:**

- A. The Steel Doors are based on Stiles Custom Metal, Inc. Model Lab-Tek™ ([see www.stilesdoor.com](http://www.stilesdoor.com))
 - 1. Vertical Edges and Top and Bottom Edges: Door shall be built from two unitized face sheets with all four edges of the door folded and joined at center of vertical edges and top and bottom edges. All seams shall be continuously welded with no visible seams on any surface of the door creating a completely smooth hermitically door skin. Welds shall be finished smooth. The use of Mineral fillers is not permitted. Exposed seams are permitted.
 - 2. Single acting doors - beveled 1/8" in 2" profile. Double acting doors - rounded on 2-1/8" radius. All hardware furnished by the hardware contractor for single acting doors shall be designed for beveled edges as specified herein.
 - 3. Door Core: ([choose one](#)) [[Vertical Steel Stiffened](#)], [[Polyurethane](#)], [[Endura™ Impact Resistant](#)] [[Polystyrene](#)] ([see www.stilesdoor.com](http://www.stilesdoor.com)) Core and inside of door skins shall be completely covered with contact adhesive achieving 100% bond.
 - 4. Integral Astragal: Where required astragals shall be formed as an integral part of the doors skin with corresponding recessed area formed into adjacent door. Surface mounted flat plate or "Z" shaped astragals shall not be accepted.

Lab-Tek™ STEEL DOORS AND FRAMES (continued)

5. Door thickness shall be 1-3/4".
6. Materials: Doors shall be made of commercial quality, cold-rolled steel per ASTM A1008 / A1008M.
 - a. Interior doors: Face sheets shall be 0.042 in. (18 gage) min. thickness cold rolled steel.
 - b. Exterior doors: Face sheets shall be 0.053 in. (16 gage) min. thickness with zinc coating A 60.
7. Glass Lite Kits: (choose one)

[Structural Glazed]: Internal channel shall be formed with a recess permitting the glass to be structurally glazed completely flush with the face of the door using bacteria resistant structural silicone. There shall be no exposed fasteners.]

[Flush Channel Glazed]: Door skin on clean room side shall be cut out to permit glass to be butted up to the end side surface. Glass shall be held in place on the side opposite clean room with removable glass channels or angle stops at the top and sides. Removable stop at the sill shall be either angle shaped or sloped channel. Removable stops shall be secured to the door with sheet metal screws. Glass shall be wet glazed using bacteria resistant structural silicone.]

8. Door opening tag number shall be permanently engraved into the center hinge reinforcement using a programmable engraver. The engraving shall be deep enough to be read after the hinge reinforcement bar is painted. The use of paper stickers only is not acceptable.
9. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth.

2.02 STEEL PANELS: Steel panels shall be made of the same material and construction and finished in the same way as specified for doors.

2.03 FRAMES

- A. Provisions of this section are applicable to door frames, transom lights, sidelights and window assemblies.
1. Materials: Frames shall be constructed of 16 gage, 0.053 in. (1.3mm) minimum thickness. Exterior frames shall have an A60 zinc coating.
 2. Construction: Frames shall be welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header; mullion and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings.
 3. Mitered corner joints shall have all contact edges closed tight with faces mitered and stops butted. Faces and soffits shall be continuously welded. The use of gussets or splice plates shall not be acceptable. All other joints shall have faces continuously welded. Faces shall be finished smooth. Mineral fillers are not permitted.
 4. When shipping limitations so dictate, frames for large openings shall be fabricated in sections designated for assembly in the field by installer. Field joints shall be made in accordance with approved submittal drawings and shall be field welded by installer.

2.04 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface mounted, anchor hinges, or non-template mortise hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM/HMMA 830 and 861.

2.05 FINISH: Doors and frames shall be treated to insure maximum paint adhesion and shall be painted on all accessible surfaces with one coat of a rust inhibitive, modified Alkyd, Zinc compound, gray primer that meets or exceeds all ANSI A250.10-98 performance criteria. Primer coat shall be fully cured prior to shipment. Red or brown colored primers shall not be permitted.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

Lab-Tek™ STEEL DOORS AND FRAMES (continued)**3.02 SITE STORAGE AND PROTECTION OF MATERIALS**

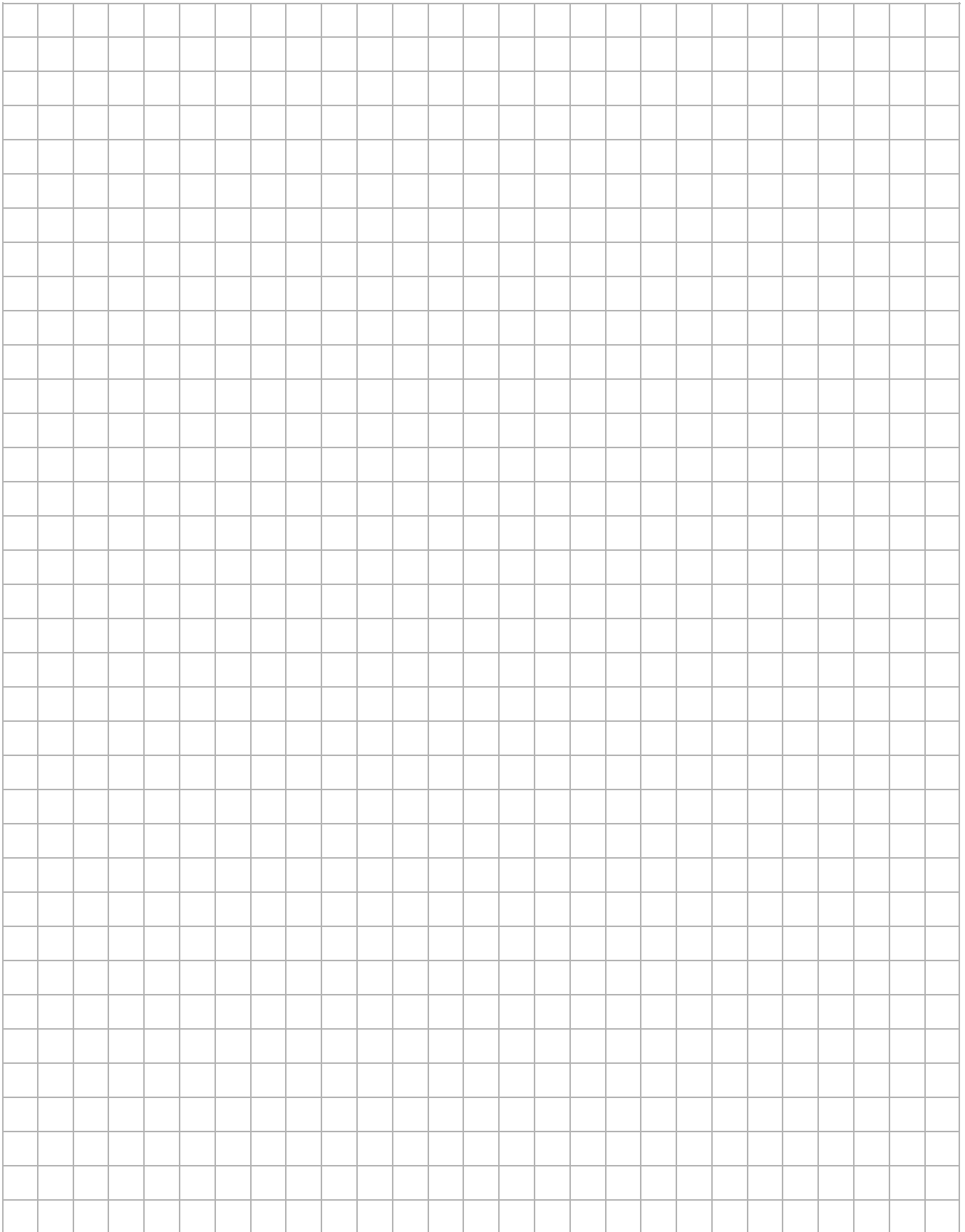
- A. Deliver and store materials to prevent damaging and marring finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful surfaces and from careless handling, storage or machining.

3.03 INSTALLATION

- A. It shall be the responsibility of the installation contractor to perform the following:
- B. Installation and tolerances shall meet the requirements of HMMA 840 and as further specified here in. Prior to installation, all frames must be checked and corrected for size, swing, square, plumb, alignment, and twist.
- C. Any grout or other bonding material shall promptly be cleaned off of frames or doors following installation. Hollow metal surfaces shall be kept free of grout, tar, or other bonding material or sealer.
- D. Plaster guards and junction boxes are intended to protect hardware mortises and tapped mounting holes from masonry grout of 4" maximum slump consistency which is hand troweled in place. Grouting materials such as gypsum products which require air to dry (cure) shall not be used in any closed section, such as a mullion.
- E. Hardware must be applied in accordance with hardware manufacturer's templates and instructions.
- F. Primed or painted surfaces which have been scratched or otherwise marred during in-stallation including field welding and/or cleaning shall be promptly finished smooth, cleaned, treated for maximum paint adhesion and touched up with a rust inhibitive primer.

End of Section

Notes



Endura™ STEEL DOORS AND FRAMES**Section 08 1110****PART I GENERAL****1.01 SUMMARY**

- A. Description: This section includes Steel Doors, Frames, Sidelites, Transom and Window Frames where shown on the drawings and as specified herein.
- B. Related work not included in this section:
 - 1. Builders finish hardware including gaskets and weather-stripping.
 - 2. Glass and glazing.
 - 3. Sealant and caulking at joints.

1.02 QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association.
 - 2. ANSI, American National Standards Institute.
 - 3. ASTM, American Society for Testing and Materials.
 - 4. ADA, Americans with Disabilities Act.
 - 5. NFPA 80, National Fire Protection Association
 - 6. NAAMM/HMMA, National Association of Architectural Metals Manufacturers.
 - 7. UL 10C, Standards for Positive Fire Tests of Door Assemblies.
- B. Manufacturer shall have been regularly engaged in manufacturing steel door, frames and window assemblies for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- C. Provide current test reports to substantiate that all products have been tested to meet the following criteria.
 - 1. Fire Labeled doors and frames, ASTM E2074, UBC 7.2, UL 10C
 - 2. Performance test, ANSI A250.4
 - 3. Wind Load, Deflection / ASTM E330, Air Infiltration / ASTM E283, Water Penetration / ASTM E331
- D. Allowable Tolerances as stated in NAAMM/HMMA Technical Manual.

1.03 SUBMITTALS: Submittal Drawings: Show door and frame elevations and sections. Show listing of opening descriptions including locations, gages, and anchors. Show location and details of all openings. Include test reports on the following: Cycle test, Air and Water Infiltration.

1.04 WARRANTY: All hollow metal work shall be warranted from defects in workmanship and quality for a period of three (3) years from shipment.

PART II PRODUCTS**2.01 DOORS**

- A. The Steel Doors are based on Stiles Custom Metal, Inc. Model: Endura™ ([see www.stilesdoor.com](http://www.stilesdoor.com)) and shall be of the types and sizes shown on the approved submittal drawings and shall be constructed in accordance with the specifications.
 - 1. Impact Resistant Door Core: Entire interior of door shall be reinforced with Endura™ core, a proprietary, rigid, impact-resistant core material. Core shall be laminated to the inside of the door skins with contact adhesive achieving 100% bond.
 - 2. Vertical Edges: Door face sheets shall be joined at center of vertical edges and continuously welded full height of the door with no visible seams on their faces or vertical edges. Welds shall be finished smooth. All finish hardware furnished by the hardware supplier for single acting doors shall be designed for beveled edges as specified herein.
 - 3. Integral Astragal: Where required astragals shall be formed as an integral part of the doors skin with corresponding recessed area formed into adjacent door. Surface mounted flat plate or "Z" shaped astragals shall not be accepted.
 - 4. Door thickness shall be 1-3/4". Doors shall be neat in appearance and free from warp or buckle. Edge bends shall be true and straight and of minimum radius for the gage of metal used.

Endura™ STEEL DOORS AND FRAMES (continued)

5. Materials: Doors shall be made of commercial quality, cold-rolled steel per ASTM A1008 / A1008M.
 - a. Interior doors: Face sheets shall be 0.042 in. (18 gage) min. thickness cold rolled steel.
 - b. Exterior doors: Face sheets shall be 0.053 in. (16 gage) min. thickness with zinc coating A-60.
6. The top and bottom edges shall be closed with a continuous channel, 16 gage minimum, spot welded to both face sheets maximum 4" o.c. Top of exterior doors shall be fitted with an additional flush closing channel and sealed water-tight.
7. Door opening tag number shall be permanently engraved into the center hinge reinforcement using a programmable engraver. The engraving shall be deep enough to be read after the hinge reinforcement bar is painted. The use of paper stickers only is not acceptable.
8. Glass moldings and stops: Where specified, doors shall be provided with internal channel type, flush glass moldings, to secure glazing in accordance with glass sizes and thickness shown on approved submittal drawings. Molding channels minimum 18 gauge steel, securely spot welded, maximum 4" o.c., to the inside face of the door skin. Removable glass channel stops shall be minimum 18 gage, A60 galvanized steel, butted at corner joints, secured to the door with zinc plated #8 oval head, countersunk, sheet metal screws. Door lites that are cut out of the door after the door is built are not acceptable. Externally mounted lite kits that protrude from the door face are not acceptable.
9. Louvers: Louvers shall be sight proof, with (choose one) [embossed, security type kick proof] or [V or Y type] blades, minimum 18 gage, secured to door with sheet metal screws. Louvers at exterior locations shall be A60 galvanized and be provided with Insect screens. Door skins at louver cutouts shall be reinforced with continuous channel reinforcement, full door thickness and perimeter, spot welded to door face 4" o.c.
10. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth.

2.02 STEEL PANELS: Steel panels shall be made of the same material and construction and finished in the same way as specified for doors.

2.03 FRAMES:

- A. Provisions of this section are applicable to door frames, transom lites, sidelites and window assemblies.
1. Materials: Frames shall be constructed of 16 gage, 0.053 in. (1.3mm) minimum thickness. Exterior frames shall have an A60 zinc coating.
 2. Construction: Frames shall be welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header; mullion and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings.
 3. Mitered corner joints shall have all contact edges closed tight with faces mitered and stops butted. Faces and soffits shall be continuously welded. The use of gussets or splice plates shall not be acceptable. All other joints shall have faces continuously welded. Faces shall be finished smooth. Mineral fillers are not permitted.
 4. Exterior windows: Window installer and glazier shall follow Stiles instructions to prevent air and water penetration.
 5. Exterior door frames shall have Seal-Tek™ (see www.stilesdoor.com) integral weather-strip kerf provided.
 6. When shipping limitations so dictate, frames for large openings shall be fabricated in sections designated for assembly in the field by installer. Field joints shall be made in accordance with approved submittal drawings and shall be field welded by installer.

2.04 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface mounted, anchor hinges, or non-template mor-tise hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM/HMMA 830 and 861.

2.05 FINISH: Doors and frames shall be treated to insure maximum paint adhesion and shall be painted on all accessible surfaces with one coat of a rust inhibitive, modified Alkyd, Zinc compound, gray primer that meets or exceeds all ANSI A250.10-98 performance criteria. Primer coat shall be fully cured prior to shipment. Red or brown colored primers shall not be permitted.

[Endura™ STEEL DOORS AND FRAMES \(continued\)](#)**PART III EXECUTION**

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

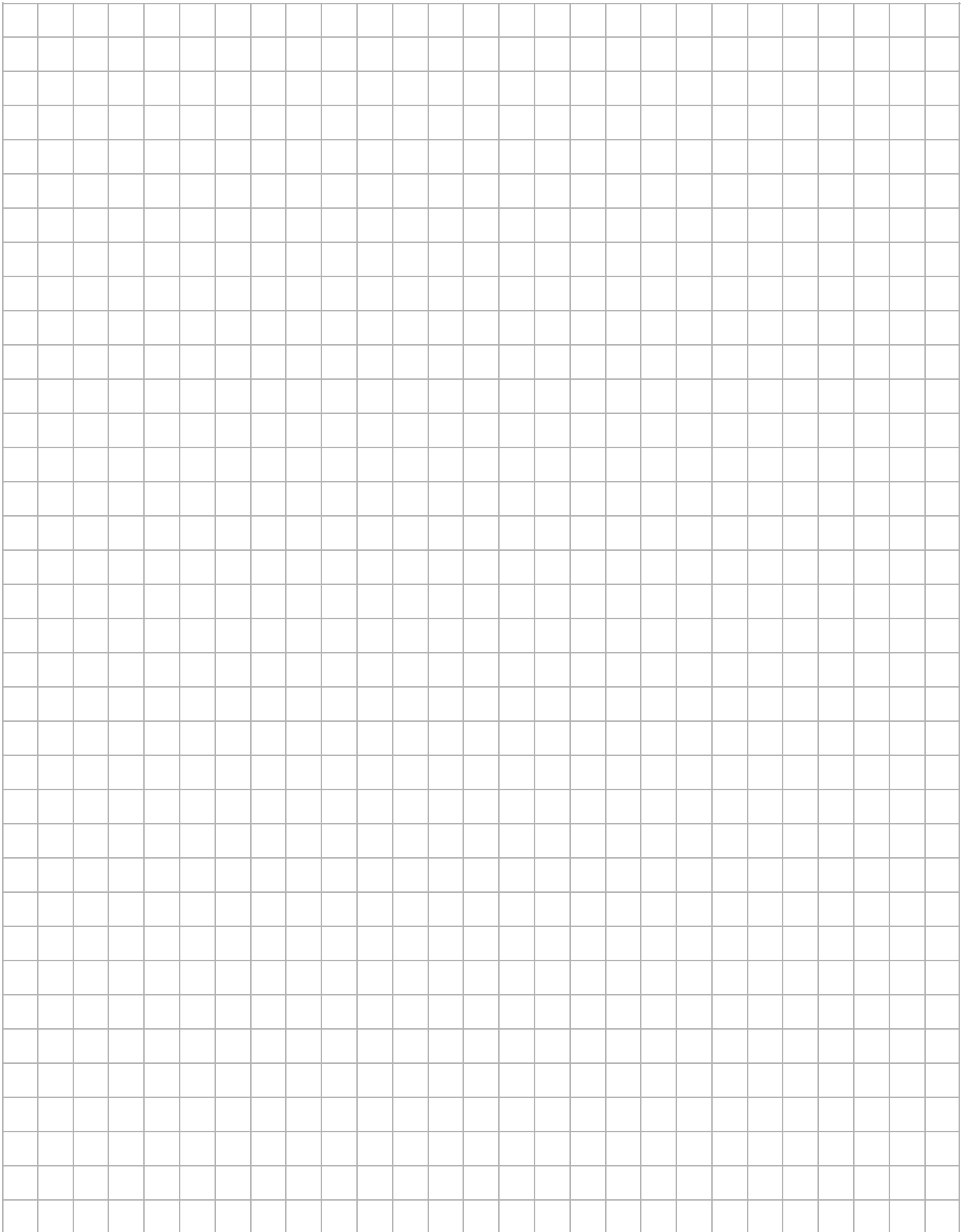
- A. Deliver and store materials to prevent damaging and marring finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful surfaces and from careless handling, storage or machining.

3.03 INSTALLATION:

- A. It shall be the responsibility of the installation contractor to perform the following:
- B. Installation and tolerances shall meet the requirements of HMMA 840 and as further specified here in. Prior to installation, all frames must be checked and corrected for size, swing, square, plumb, alignment, and twist.
- C. Any grout or other bonding material shall promptly be cleaned off of frames or doors following installation. Hollow metal surfaces shall be kept free of grout, tar, or other bonding material or sealer.
- D. Plaster guards and junction boxes are intended to protect hardware mortises and tapped mounting holes from masonry grout of 4" maximum slump consistency which is hand troweled in place. Grouting materials such as gypsum products which require air to dry (cure) shall not be used in any closed section, such as a mullion.
- E. Hardware must be applied in accordance with hardware manufacturer's templates and instructions.
- F. Primed or painted surfaces which have been scratched or otherwise marred during in-stallation including field welding and/or cleaning shall be promptly finished smooth, cleaned, treated for maximum paint adhesion and touched up with a rust inhibitive primer.

[End of Section](#)

Notes



True Stile & Rail™ STEEL DOORS AND FRAMES**Section 08 1110****PART I GENERAL****1.01 SUMMARY**

- A. Description: This section includes Steel Doors, Frames, Sidelites, Transom and Window Frames where shown on the drawings and as specified herein.
- B. Related work not included in this section:
 - 1. Builders Finish Hardware including gaskets and weather-stripping.
 - 2. Glass and glazing.
 - 3. Sealant and caulking at joints.

1.02 QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association.
 - 2. ANSI, American National Standards Institute.
 - 3. ASTM, American Society for Testing and Materials.
 - 4. ADA, Americans with Disabilities Act.
 - 5. NFPA 80, National Fire Protection Association
 - 6. NAAMM/HMMA, National Association of Architectural Metals Manufacturers.
 - 7. UL 10C, Standards for Positive Fire Tests of Door Assemblies.
- B. Manufacturer shall have been regularly engaged in manufacturing steel door, frames and window assemblies for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- C. Provide current test reports to substantiate that all products have been tested to meet the following criteria.
 - 1. Fire Labeled doors and frames, ASTM E2074, UBC 7.2, UL 10C
 - 2. Performance test, ANSI A250.4
 - 3. Wind Load, Deflection / ASTM E330, Air Infiltration / ASTM E283, Water Penetration / ASTM E331
- D. Allowable Tolerances as stated in NAAMM/HMMA Technical Manual.

1.03 SUBMITTALS: Submittal Drawings: Show door and frame elevations and sections. Show listing of opening descriptions including locations, gages, and anchors. Show location and details of all openings. Include test reports on the following: Cycle test, Air and Water Infiltration.

1.04 WARRANTY: All hollow metal work shall be warranted from defects in workmanship and quality for a period of three (3) years from shipment.

PART II PRODUCTS**2.01 DOORS:**

- A. The Steel Doors are based on Stiles Custom Metal, Inc. Model: True Stile and Rail™ ([see www.stilesdoor.com](http://www.stilesdoor.com)) and shall be of the types and sizes shown on the approved submittal drawings and shall be constructed in accordance with the specifications.
- B. Construction:
 - 1. Stile and Rail doors shall be unitized, true tube type construction with joints continuously welded and ground smooth.
 - 2. Door Core: Polystyrene, rigid, extruded, closed cell board, 1 pound per cubic foot density min., conforming to ASATM C578, Type 1 shall fill void in stile and rails. Core shall be laminated to the inside of the door skins with contact adhesive achieving 100% bond.
 - 3. Vertical Edges: Door face sheets shall be joined at center of vertical edges and continuously welded full height of the door with no visible seams on their faces or vertical edges. Welds shall be finished smooth. Single acting doors - beveled 1/8" in 2" profile. Double acting doors - rounded on 2-1/8" radius. All hardware furnished by the hardware contractor for single acting doors shall be designed for beveled edges as specified herein.

TRUE STILE & RAIL™ STEEL DOORS AND FRAMES (continued)

4. Integral Astragal: Where required astragals shall be formed as an integral part of the doors skin with corresponding recessed area formed into adjacent door. Surface mounted flat plate or "Z" shaped astragals shall not be accepted.
5. Door thickness shall be 1-3/4". Doors shall be neat in appearance and free from warp or buckle. Edge bends shall be true and straight and of minimum radius for the gage of metal used.
6. Materials: Doors shall be made of commercial quality, cold-rolled steel per ASTM A1008 / A1008M. Stile and rails shall be 0.053 in. (16 gage) min. thickness with zinc coating A-60 at exterior..
7. The top and bottom edges shall be closed with a continuous channel, 16 gage minimum, spot welded to both face sheets maximum 4" o.c. Top of exterior doors shall be fitted with an additional flush closing channel and sealed water-tight.
8. Door opening tag number shall be permanently engraved into the center hinge reinforcement using a programmable engraver. The engraving shall be deep enough to be read after the hinge reinforcement bar is painted. The use of paper stickers only is not acceptable.
9. Glass moldings and stops: Where specified, Fixed molding stop shall be a formed integral of the door skin to secure glazing in accordance with glass sizes and thickness shown on approved submittal drawings. Removable glass channel stops shall be butted at corner joints, secured to the door with concealed, #8, sheet metal screws. Exposed fasteners shall not be accepted. Door lights that are cut out of the door after the door is built are not acceptable. Externally mounted lite kits that protrude from the door face are not acceptable.
10. Louvers: Louvers shall be sight proof, with: (choose one) [embossed, security type kick proof] or [V or Y type] blades, minimum 18 gage, secured to door with sheet metal screws. Louvers at exterior locations shall be A-60 galvanized and be provided with Insect screens. Door skins at louver cutouts shall be reinforced with continuous channel reinforcement, full door thickness and perimeter, spot welded to door face 4" o.c.
11. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth.

2.02 STEEL PANELS: Steel panels shall be made of the same material and construction and finished in the same way as specified for doors.

2.03 FRAMES:

- A. Provisions of this section are applicable to door frames, transom lites, sidelites and window assemblies.
1. Materials: Frames shall be constructed of 16 gage, 0.053 in. (1.3mm) minimum thickness. Exterior frames shall have an A-60 zinc coating.
 2. Construction: Frames shall be welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header; mullion and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings.
 3. Mitered corner joints shall have all contact edges closed tight with faces mitered and stops butted. Faces and soffits shall be continuously welded. The use of gussets or splice plates shall not be acceptable. All other joints shall have faces continuously welded. Faces shall be finished smooth. Mineral fillers are not permitted.
 4. Exterior windows: Window installer and glazier shall follow Stiles instructions to prevent air and water penetration.
 5. Exterior door frames shall have Seal-Tek™ (see www.stilesdoor.com) integral weather-strip kerf provided.
 6. When shipping limitations so dictate, frames for large openings shall be fabricated in sections designated for assembly in the field by installer. Field joints shall be made in accordance with approved submittal drawings and shall be field welded by installer.

2.04 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface mounted, anchor hinges, or non-template mor-tise hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM/HMMA 830 and 861.

TRUE STILE & RAIL™ STEEL DOORS AND FRAMES (continued)

2.05 FINISH: Doors and frames shall be treated to insure maximum paint adhesion and shall be painted on all accessible surfaces with one coat of a rust inhibitive, modified Alkyd, Zinc compound, gray primer that meets or exceeds all ANSI A250.10-98 performance criteria. Primer coat shall be fully cured prior to shipment. Red or brown colored primers shall not be permitted.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

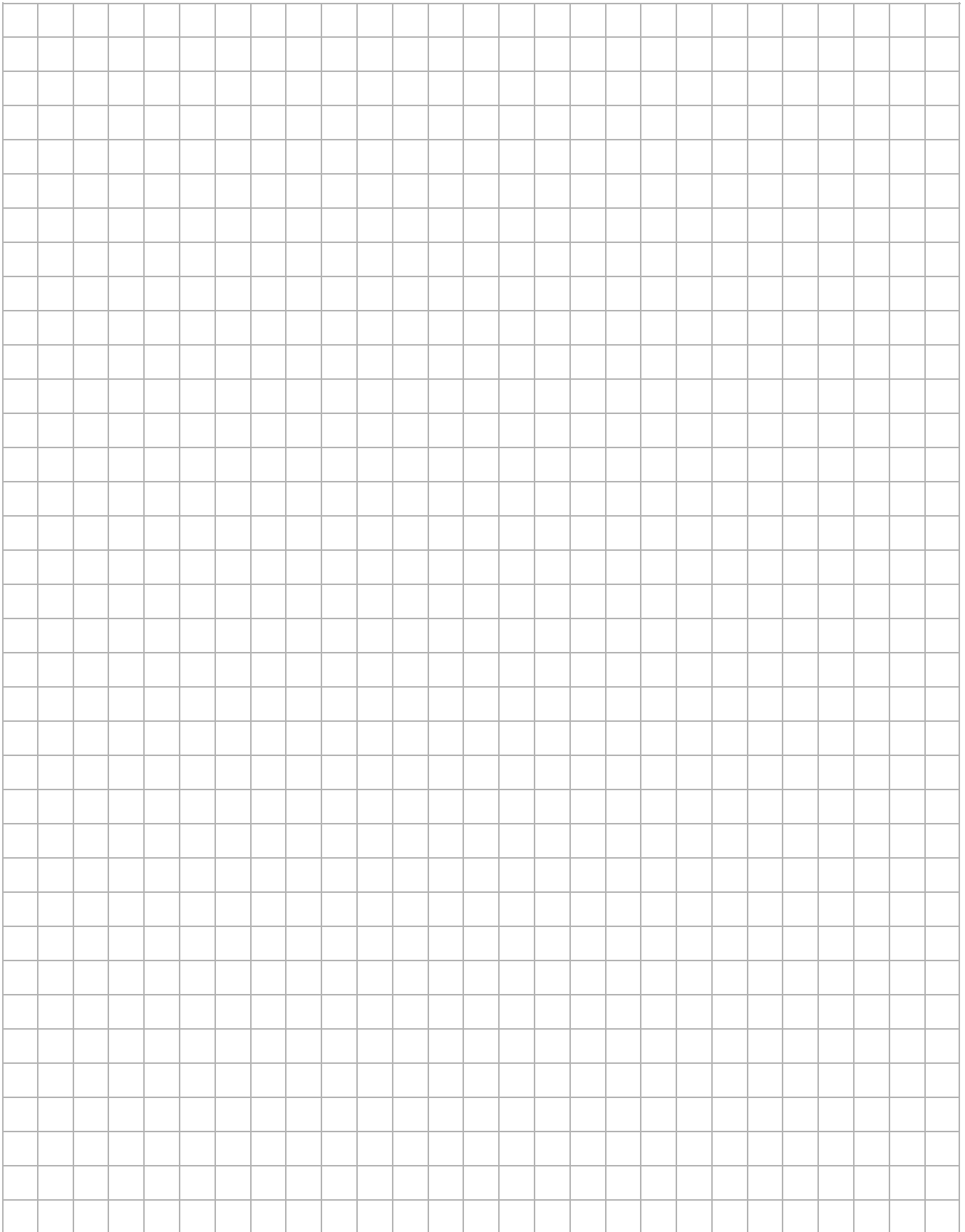
- A. Deliver and store materials to prevent damaging and marring finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful surfaces and from careless handling, storage or machining.

3.03 INSTALLATION:

- A. It shall be the responsibility of the installation contractor to perform the following:
- B. Installation and tolerances shall meet the requirements of HMMA 840 and as further specified here in. Prior to installation, all frames must be checked and corrected for size, swing, square, plumb, alignment, and twist.
- C. Any grout or other bonding material shall promptly be cleaned off of frames or doors following installation. Hollow metal surfaces shall be kept free of grout, tar, or other bonding material or sealer.
- D. Plaster guards and junction boxes are intended to protect hardware mortises and tapped mounting holes from masonry grout of 4" maximum slump consistency which is hand troweled in place. Grouting materials such as gypsum products which require air to dry (cure) shall not be used in any closed section, such as a mullion.
- E. Hardware must be applied in accordance with hardware manufacturer's templates and instructions.
- F. Primed or painted surfaces which have been scratched or otherwise marred during in-stallation including field welding and/or cleaning shall be promptly finished smooth, cleaned, treated for maximum paint adhesion and touched up with a rust inhibitive primer.

End of Section

Notes



Wood Grain STEEL DOORS AND FRAMES

Section 08 1110

PART I GENERAL

1.01 SUMMARY:

- A. Description: This section includes Steel Doors, Frames, Sidelites, Transom and Window Frames, where shown on the drawings and as specified herein.
- B. Related work not included in this section:
 - 1. Builder's finish hardware including gaskets and weather-stripping.
 - 2. Glass and glazing.
 - 3. Sealant and caulking at joints.

1.02 QUALITY ASSURANCE:

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association.
 - 2. ANSI, American National Standards Institute.
 - 3. ASTM, American Society for Testing and Materials.
 - 4. ADA, Americans with Disabilities Act.
 - 5. NFPA 80, National Fire Protection Association
 - 6. NAAMM/HMMA, National Association of Architectural Metal Manufacturers.
 - 7. UL 10C, Standards for Positive Fire Tests of Door Assemblies.
- B. Manufacturer shall have been regularly engaged in manufacturing steel doors, frames and window assemblies for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- C. Provide current test reports to substantiate that all products have been tested to meet the following criteria:
 - 1. Fire Labeled doors and frames, ASTM E2074, UBC 7.2, UL 10C
 - 2. Performance test, ANSI A250.4
 - 3. Wind Load, Deflection / ASTM E330, Air Infiltration / ASTM E283, Water Penetration / ASTM E331
- D. Allowable tolerances as stated in NAAMM/HMMA Technical Manual.

1.03 SUBMITTALS: Submittal Drawings: Show door and frame elevations and sections. Show listing of opening descriptions including locations, gages, and anchors. Show location and details of all openings. Include test reports on the following: Cycle test, Air and Water Infiltration.

1.04 WARRANTY: All hollow metal work shall be warranted free from defects in workmanship and quality for a period of three (3) years from shipment.

PART II PRODUCTS

2.01 DOORS

- A. The Steel Doors are based on Stiles Custom Metal, Inc. Model: "Wood Grain Steel" and shall be of the types and sizes shown on the approved submittal drawings and shall be constructed in accordance with the specifications.
 - 1. Door Core Options: (choose one) [Honeycomb "Kraft" paper, hexagonal cell, fully faced], [Polyurethane], [Endura™ Impact Resistant], [Temperature Rise], [Polystyrene]
 - 2. Core and inside of door skins shall be completely covered with contact adhesive achieving 100% bond.
 - 3. Vertical Edges: Door face sheets shall be open seamed type with vertical edges joined by a with a 16 gage edge channel running the full depth and height of the door edged. Single acting doors: beveled 1/8" in 2" profile. Double acting doors: rounded on 2-1/8" radius. All hardware furnished by the hardware contractor for single acting doors shall be designed for beveled edges as specified herein.
 - 4. Integral Astragal: Where required astragals shall be formed as an integral part of the doors skin with corresponding recessed area formed into adjacent door. Surface mounted flat plate or Z shaped astragals shall not be accepted.
 - 5. Door thickness shall be 1-3/4". Doors shall be neat in appearance and free from warp or buckle. Edge bends shall be true and straight and of minimum radius for the gage of metal used.

WOOD GRAIN STEEL DOORS AND FRAMES (continued)

6. Materials: Doors shall be made of commercial quality, cold-rolled steel per ASTM A1008 / A1008M.
 - a. Face sheets shall be 0.042 in. (18 gage) min. thickness cold rolled steel with zinc coating A 60.
 - b. A wood grained texture shall be embossed into the door skins.
7. The top and bottom edges shall be closed with a continuous channel, 16 gage minimum, spot welded to both face sheets maximum 4" o.c. Top of exterior doors shall be fitted with an additional flush closing channel and sealed water-tight.
8. Door opening tag number shall be permanently engraved into the center hinge reinforcement using a programmable engraver. The engraving shall be deep enough to be read after the hinge reinforcement bar is painted. The use of paper stickers only is not acceptable.
9. Glass moldings and stops: Where specified, doors shall be provided with internal channel type, flush glass moldings, to secure glazing in accordance with glass sizes and thickness shown on approved submittal drawings. Molding channels minimum 18 gauge steel, securely spot welded, maximum 4" o.c., to the inside face of the door skin. Removable glass channel stops shall be minimum 18 gage, A60 galvanized steel, butted at corner joints, secured to the door with zinc plated #8 oval head, countersunk, sheet metal screws. Door lights that are cut out of the door after the door is built are not acceptable. Externally mounted lite kits that protrude from the door face are not acceptable.
10. Louvers: Louvers shall be sight proof, with (choose one) [embossed, security type kick proof] or [V or Y type] blades, minimum 18 gage, secured to door with sheet metal screws. Louvers at exterior locations shall be A60 galvanized and be provided with Insect screens. Door skins at louver cutouts shall be reinforced with continuous channel reinforcement, full door thickness and perimeter, spot welded to door face 4" o.c.
11. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth.

2.02 STEEL PANELS: Steel panels shall be made of the same material and construction and finished in the same way as specified for doors.

2.03 FRAMES

- A. Provisions of this section are applicable to door frames, transom lites, sidelites and window assemblies.
1. Materials: Frames shall be constructed of 16 gage, 0.053 in. (1.3mm) minimum thickness. Exterior frames shall have an A60 zinc coating.
 2. Construction: Frames shall be welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header; mullion and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings.
 3. Mitered corner joints shall have all contact edges closed tight with faces mitered and stops butted. Faces and soffits shall be continuously welded. The use of gussets or splice plates shall not be acceptable. All other joints shall have faces continuously welded. Faces shall be finished smooth. Mineral fillers are not permitted.
 4. Exterior windows: Window installer and glazer shall follow Stiles instructions to prevent air and water penetration.
 5. Exterior door frames shall have Seal-Tek™ (see www.stilesdoor.com) integral weather-strip kerf provided.
 6. When shipping limitations so dictate, frames for large openings shall be fabricated in sections designated for assembly in the field by installer. Field joints shall be made in accordance with approved submittal drawings and shall be field welded by installer.

2.04 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface mounted, anchor hinges, or non-template mor-tise hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM/HMMA 830 and 861.

2.05 FINISH: Doors and frames shall be treated to insure maximum paint adhesion and shall be painted on all accessible surfaces with one coat of a rust inhibitive, modified Alkyd, Zinc compound, gray primer that meets or exceeds all ANSI A250.10-98 performance criteria. Primer coat shall be fully cured prior to shipment. Red or brown colored primers shall not be permitted.

WOOD GRAIN STEEL DOORS AND FRAMES (continued)

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

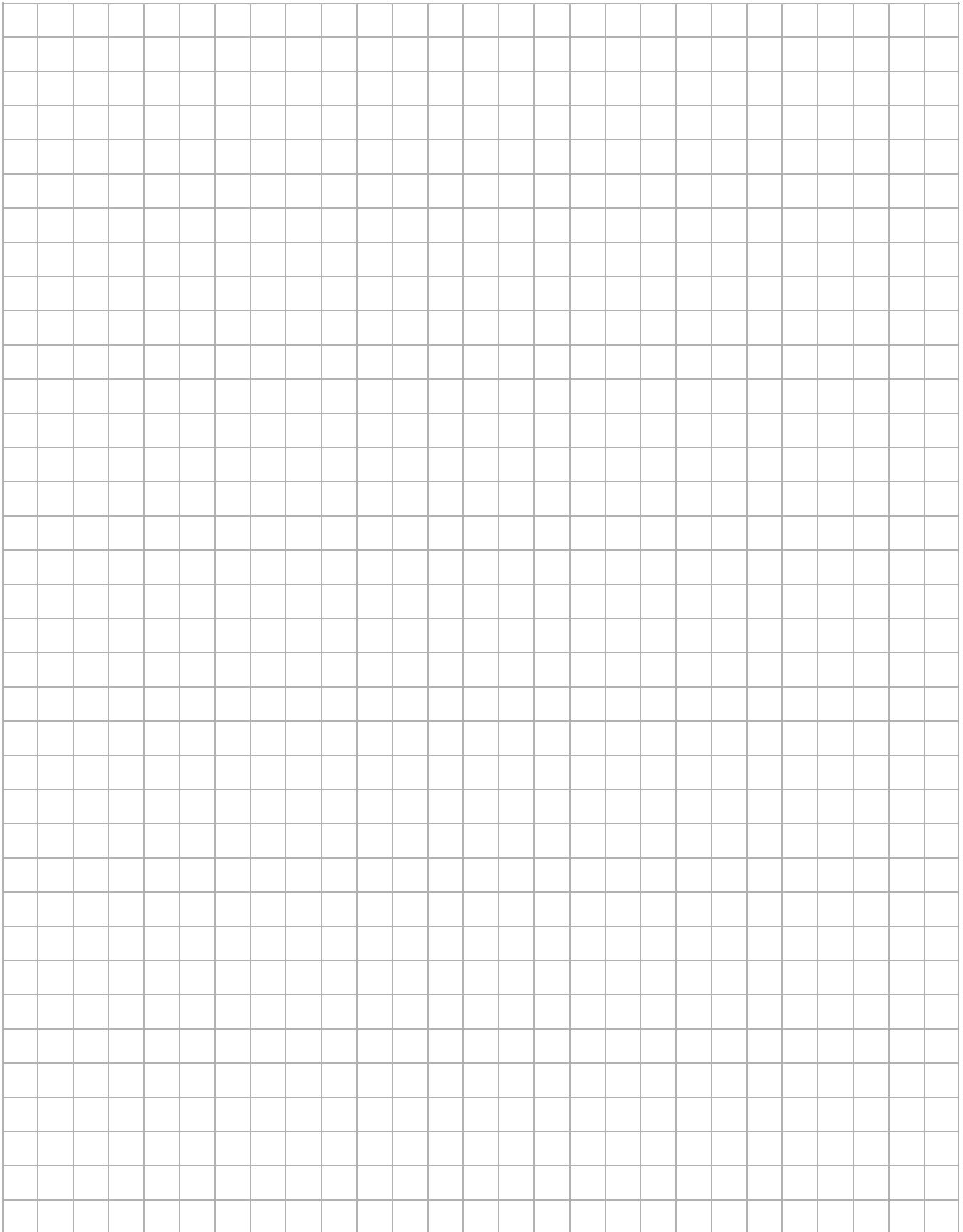
- A. Deliver and store materials to prevent damaging and marring finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful surfaces and from careless handling, storage or machining.

3.03 INSTALLATION:

- A. It shall be the responsibility of the installation contractor to perform the following:
- B. Installation and tolerances shall meet the requirements of HMMA 840 and as further specified here in. Prior to installation, all frames must be checked and corrected for size, swing, square, plumb, alignment, and twist.
- C. Any grout or other bonding material shall promptly be cleaned off of frames or doors following installation. Hollow metal surfaces shall be kept free of grout, tar, or other bonding material or sealer.
- D. Plaster guards and junction boxes are intended to protect hardware mortises and tapped mounting holes from masonry grout of 4" maximum slump consistency which is hand troweled in place. Grouting materials such as gypsum products which require air to dry (cure) shall not be used in any closed section, such as a mullion.
- E. Hardware must be applied in accordance with hardware manufacturer's templates and instructions.
- F. Primed or painted surfaces which have been scratched or otherwise marred during in-stallation including field welding and/or cleaning shall be promptly finished smooth, cleaned, treated for maximum paint adhesion and touched up with a rust inhibitive primer.

End of Section

Notes





Cerritos Elementary School, Cerritos, CA

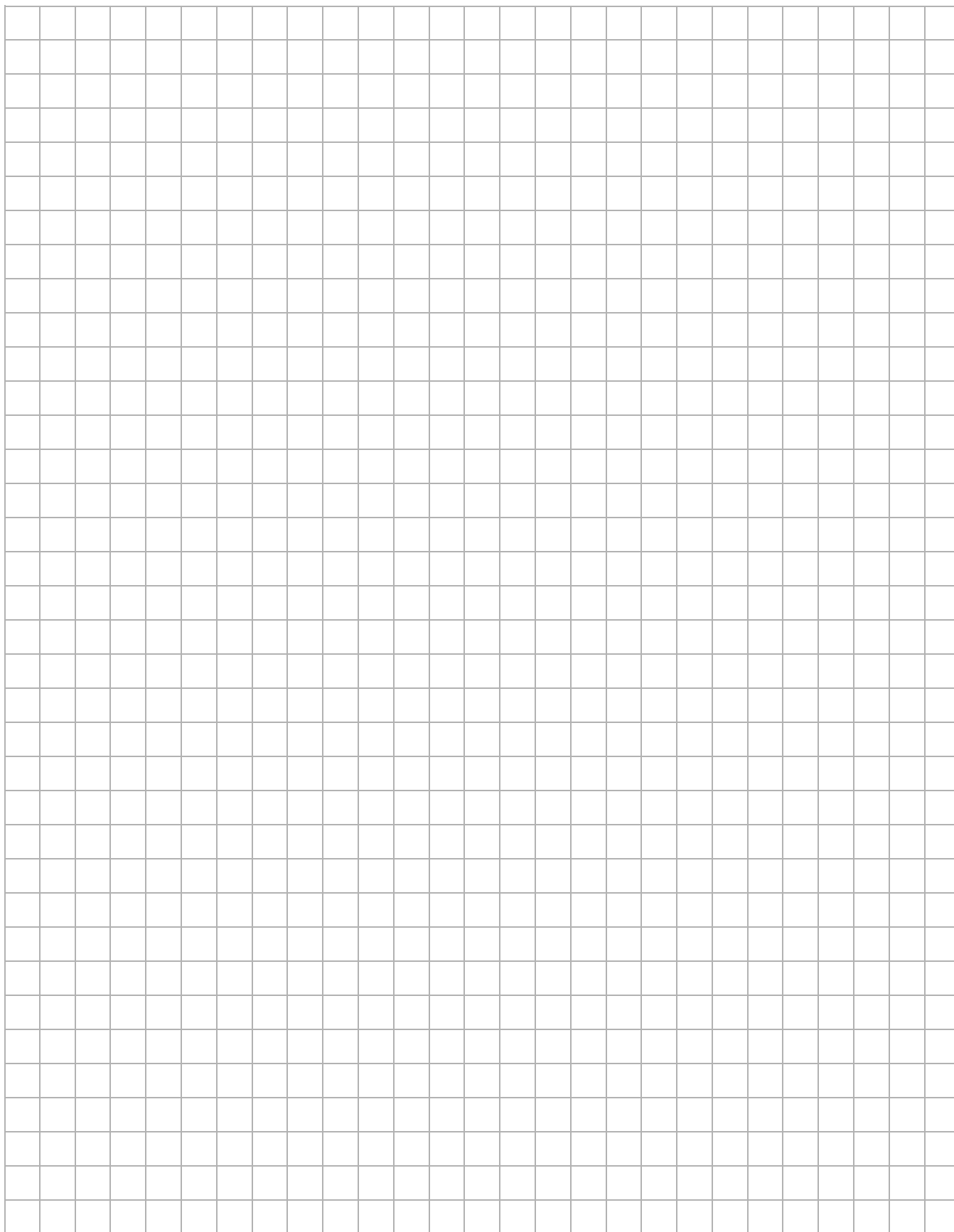
When it comes to manufacturing hollow metal frames, Stiles offers more profiles, more elevations, and the service you'd expect from the world's leading built-to-order hollow metal manufacturer.

- Door and Window Frames
- Over 20 Standard Profiles
- Fire Rated Frames to 3 HR Rating
- Square, Radius, Arched, Gothic, Curved and More
- Steel, Stainless Steel and Bronze
- Welded, KD, Adjustable, Kerf & Thermal Break
- Factory Primed or Finish Painted
- Available via Quick Ship for FAST Delivery

Section Contents	
General Frame Construction	F-1.0
Profiles	
Typical Jamb & Sill Profiles	F-2.0 - 2.1
Frame Welding	F-3.0
Elevations	
Frame Elevations	F-4.0 - 4.2
Custom Frame Elevations	F-4.3
Panel Types + Installation	F-5.0
Custom KD Drywall Frames	F-6.0
Adjust-A-Frame™	F-7.0
Seal-Tek™ Frames	F-8.0
Double Egress Frames	F-9.0
Pocket Frames	F-10.0
Frame Anchor Types	F-11.0 - 11.1

Built to Order.™

Notes

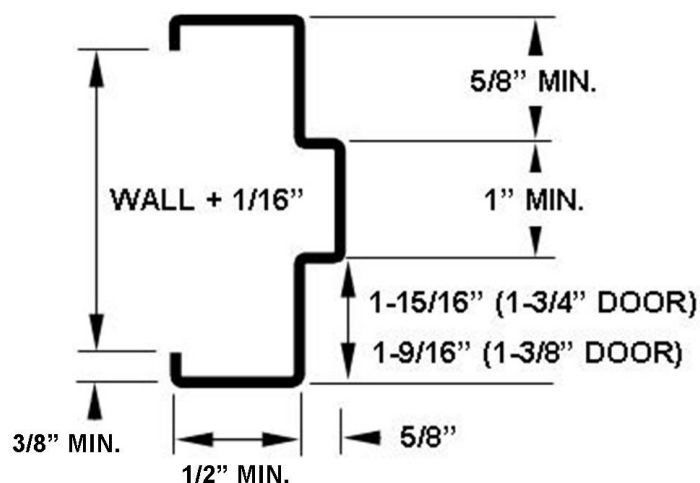


Construction

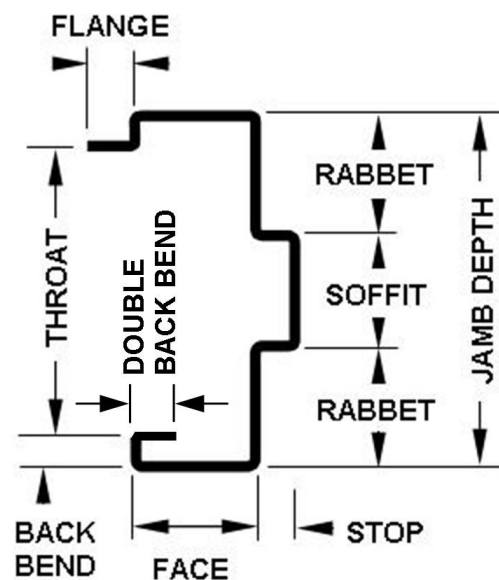
Gauge	18, 16, 14, & 12
Material	1. Cold Rolled 2. A-60 and G-90 Galvanized 3. 304 and 316 Stainless Steel
Corners	Machine Mitered
Construction Options (STD)NAAMM/HMMA 861: SDI100, HMMA 860:	Face and Soffit Welded Face Welded or Knockdown Full Welded
Hinge Reinforcement	7 GA X 1-1/4" X 10"
Strike Reinforcement	12 GA or equivalent # threads
Closer Reinforcement	12 GA

All Other Reinforcement	12 GA
Anchors	16, 14, 12 GA Cold Rolled, Galvanized or Stainless Steel
Floor Clip	16, 14, 12 GA Cold Rolled, Galvanized or Stainless Steel
Primer	Alkyd (Gray), EPA Approved
Sound Deadening	Sprayed Asphalt Coating Inside of Jambs if requested
Fire Rating	See Fire Rated Section
Finish Options	See Finish Options, General Section
Stainless Steel	See Stainless Section for finish

Minimum Frame Dimensions



Frame Nomenclature



Quick Ship 

Available via Quick Ship
See [Quick Ship Section](#)



1

Quick Ship 



2

Quick Ship 



3

Quick Ship 



4

Quick Ship 



5

Quick Ship 



6

Quick Ship 



7

Quick Ship  10-DAY



8

Quick Ship 



9

Quick Ship  10-DAY



10



11

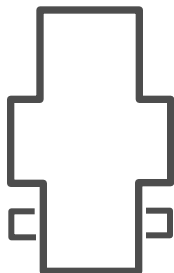


12

Quick Ship 

Quick Ship ➤

Available via Quick Ship
See [Quick Ship Section](#)



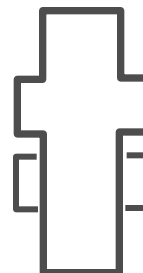
13

Quick Ship ➤



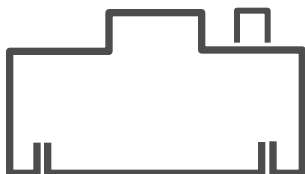
14

Quick Ship ➤

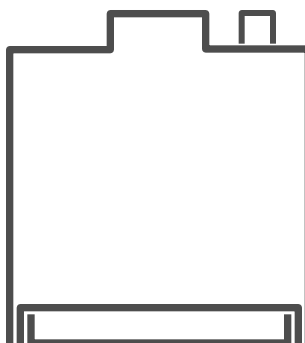


15

Quick Ship ➤ 10-DAY



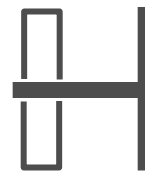
16



17

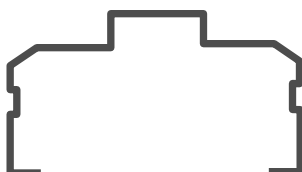
Quick Ship ➤ 10-DAY

T-Bar Frame



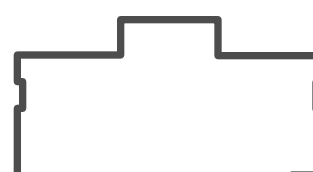
18

Shadow Line Frame



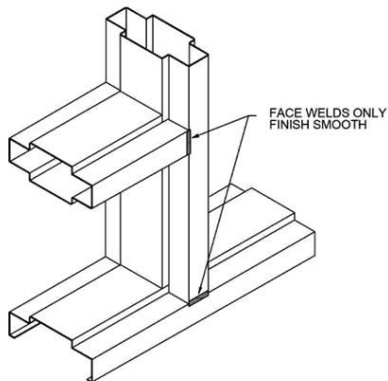
19

Shadow Line Frame

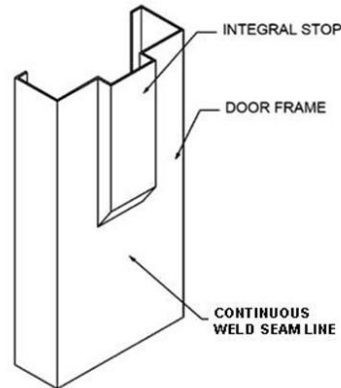


20

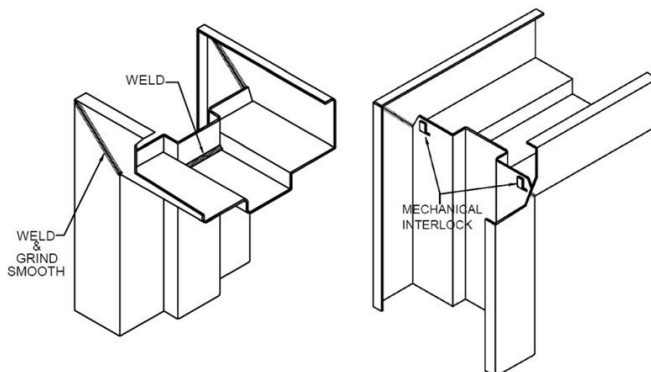
WELDED MULLION



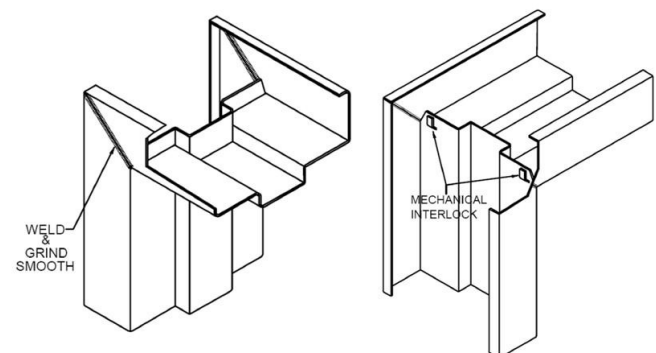
CUT-OFF STOP



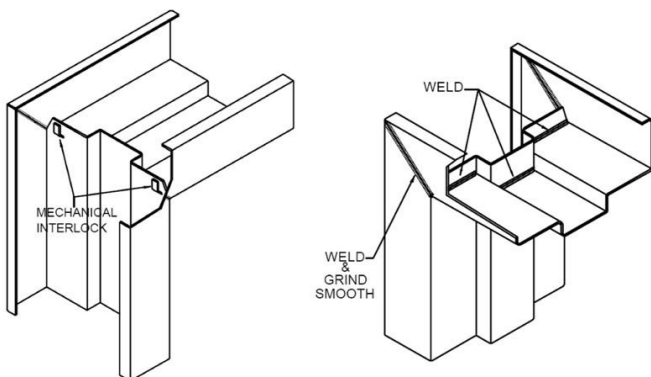
MITERED + WELDED



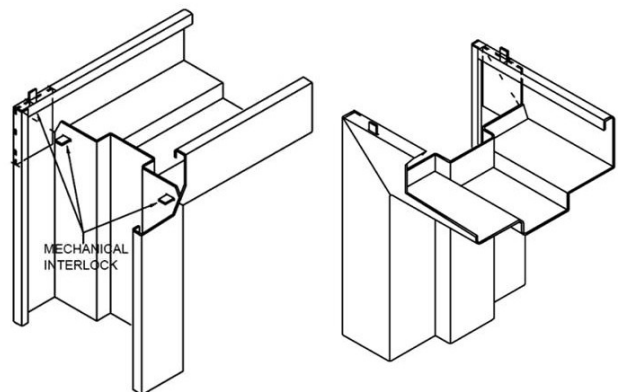
MITERED + FACE WELDED



MITERED + FULL WELD



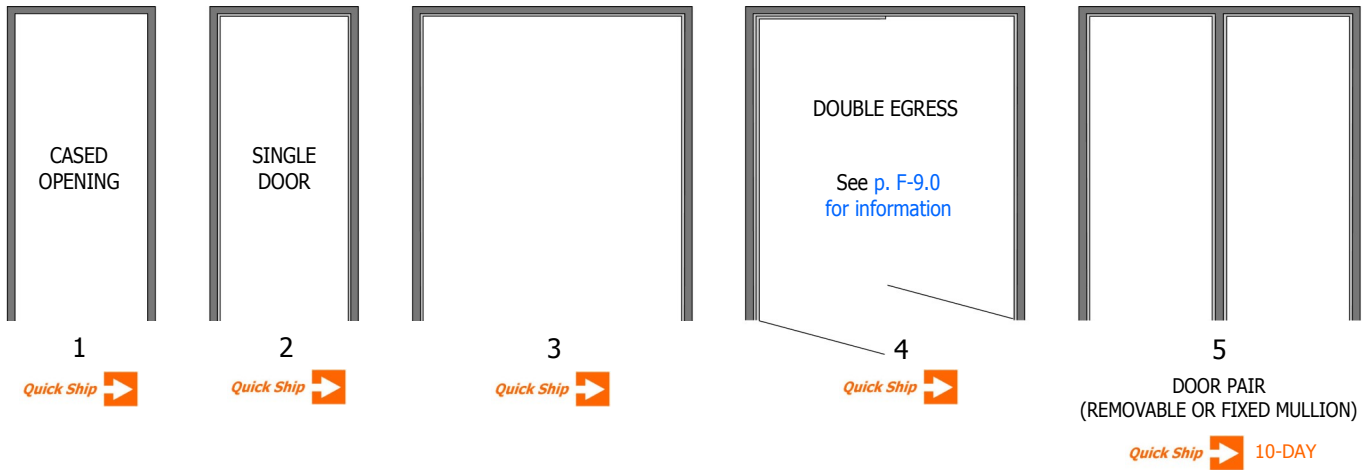
MITERED + KNOCKDOWN



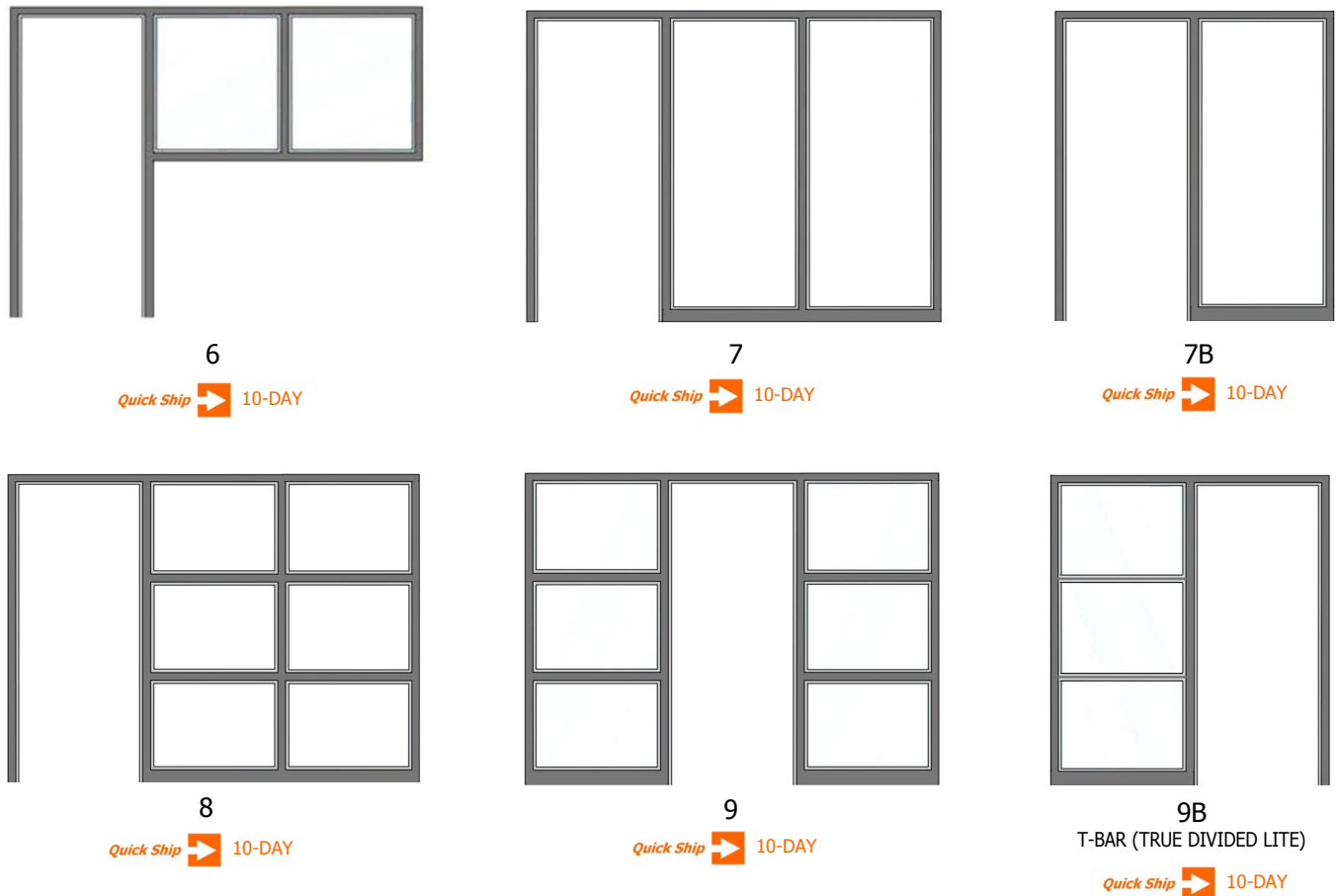
Quick Ship ➔

Available via Quick Ship: See [Quick Ship Section](#)

3-Sided Frames



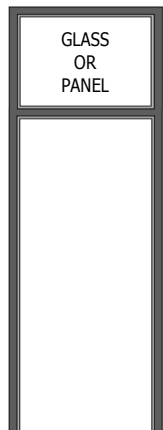
Sidelite Frames Without Transoms





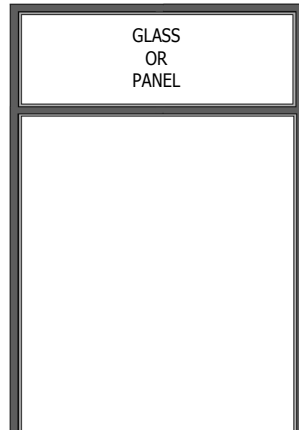
Available via Quick Ship: See [Quick Ship Section](#)

Transom Frames



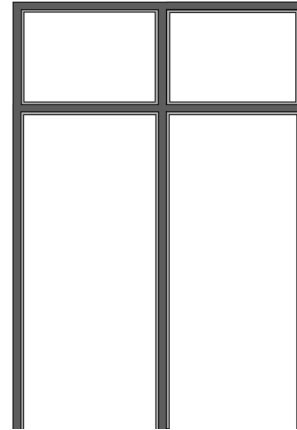
10

WITH TRANSOM BAR



11

WITH TRANSOM BAR

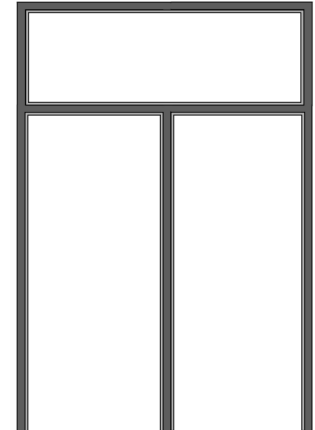


12

WITH TRANSOM MULLION



10-DAY

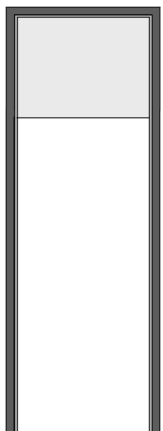


12B

WITHOUT TRANSOM MULLION

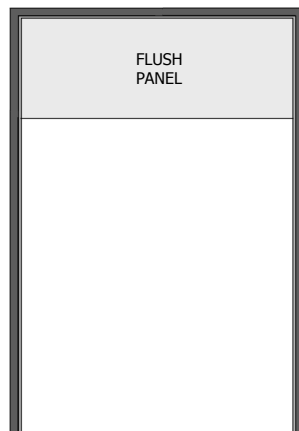


10-DAY



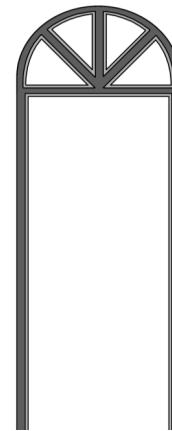
13

NO TRANSOM BAR



14

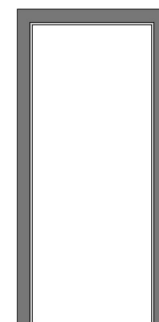
NO TRANSOM BAR



15

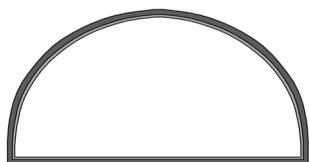
(SPECIAL)

4" Face Frames



16

4" HEAD & LEGS



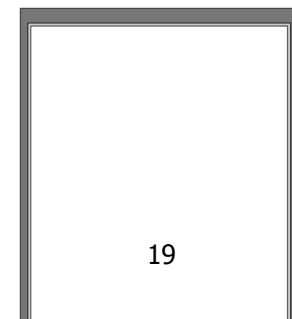
17

RADIUS TRANSOM
(SPECIAL)



18

ARCH
TRANSOM
(SPECIAL)



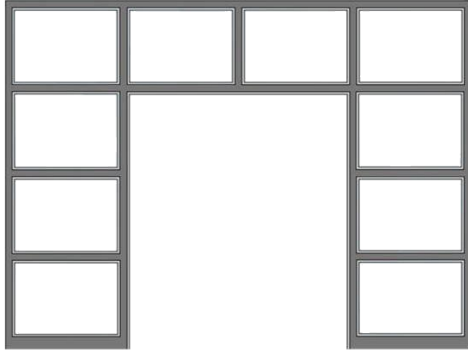
19

4" HEAD
(SPECIAL - SINGLE OR PAIR)



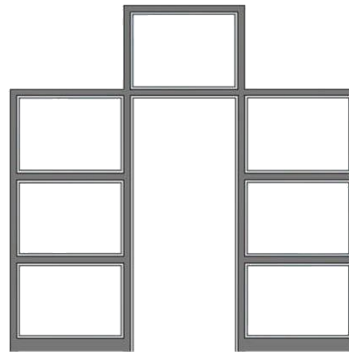
Available via Quick Ship: See [Quick Ship Section](#)

Multiple Opening Frames

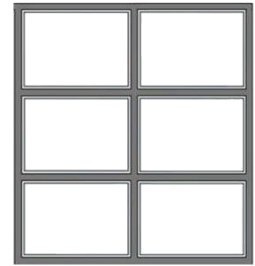


20

Quick Ship  10-DAY



21

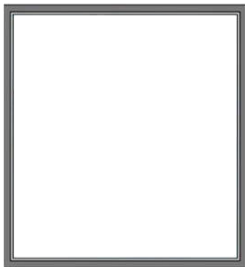


22

VARIOUS LITE
CONFIGURATIONS

Quick Ship  10-DAY

Single Opening Frames

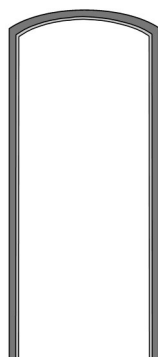


23

SINGLE LITE
SQUARE FRAMES

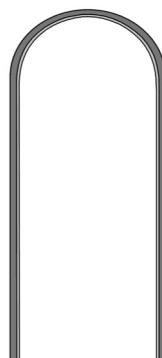
Quick Ship 

Arched + Radius Top Frames



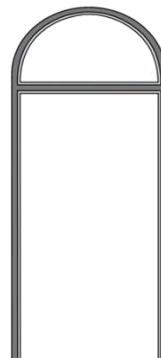
24

(SPECIAL)



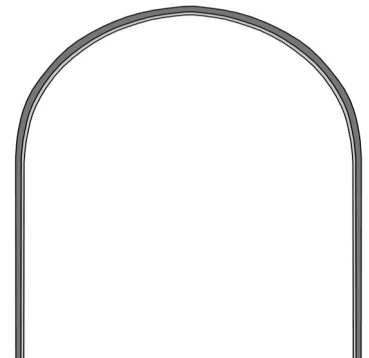
25

(SPECIAL)



26

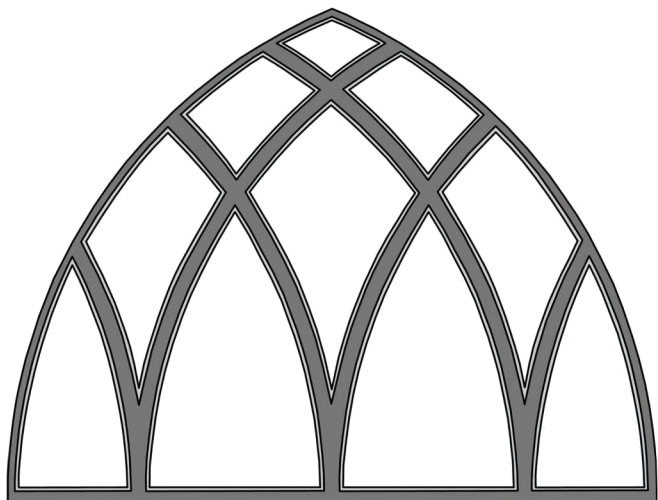
(SPECIAL)



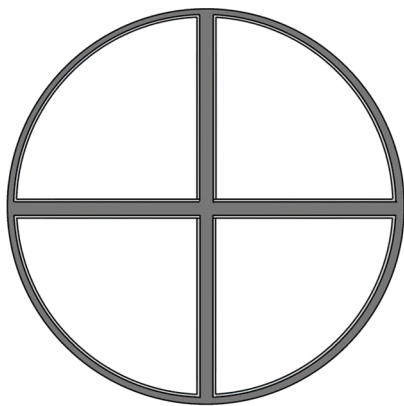
27

(SPECIAL)

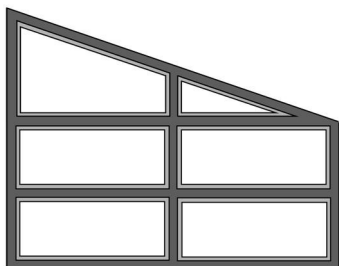
Custom Frame Elevations



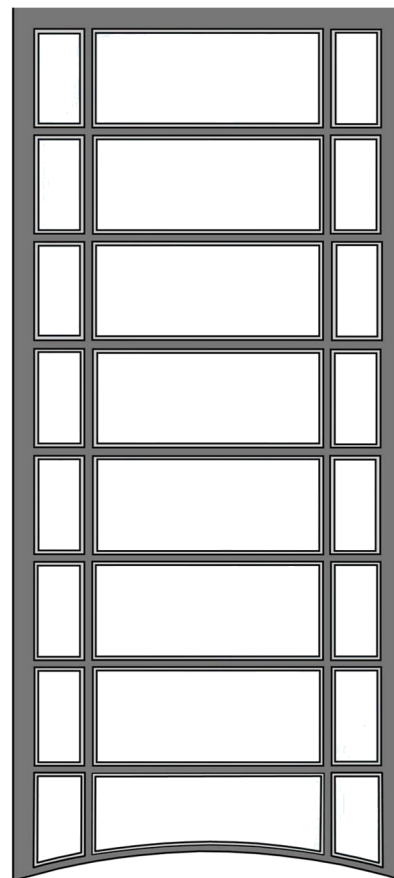
28
GOTHIC WINDOW



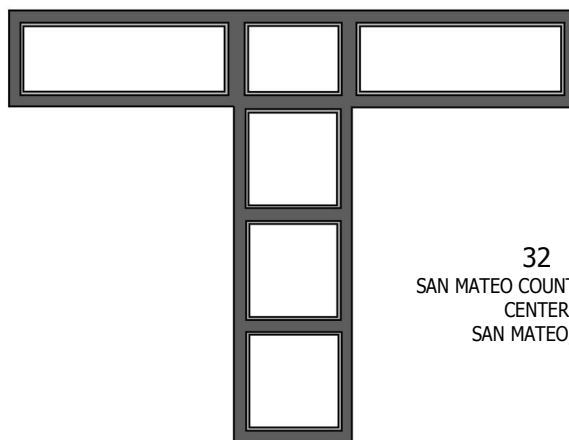
30
ST. ANDREWS PARISH
SUMNER, WA



31
ERAS CENTER
CULVER CITY, CA

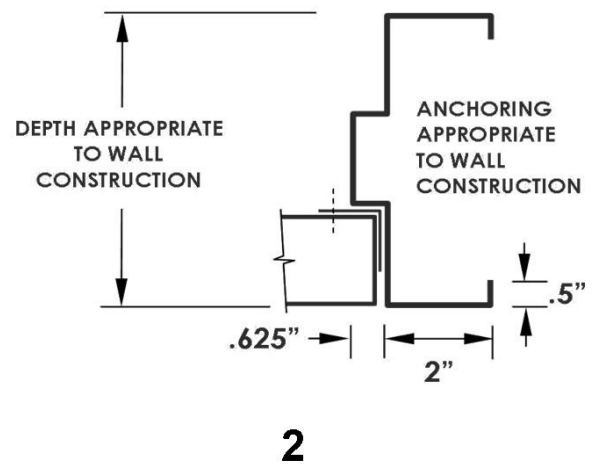
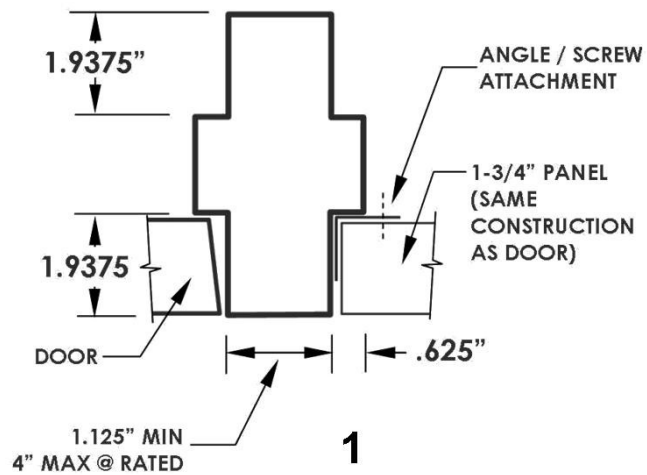


29
SAN JOSE STATE UNIVERSITY
SAN JOSE, CA

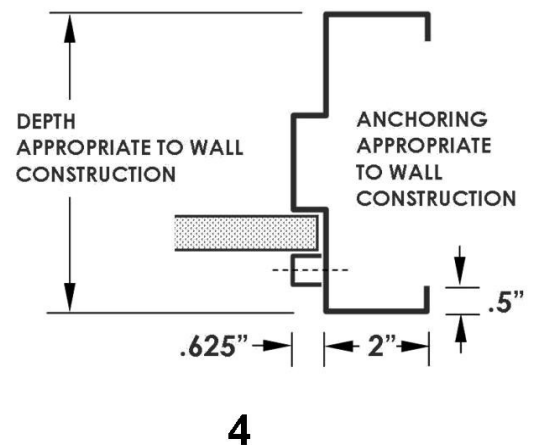
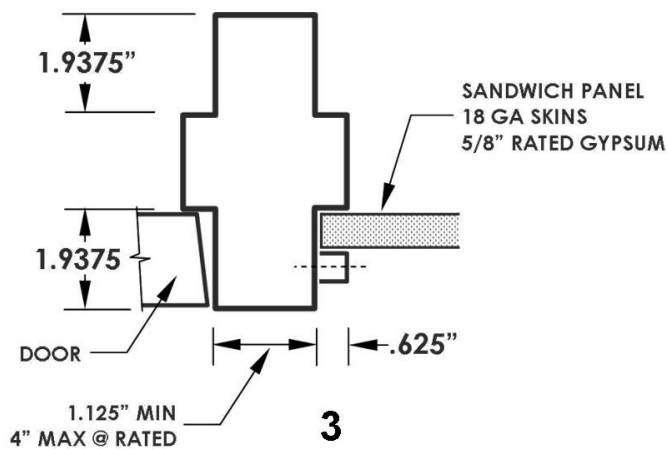


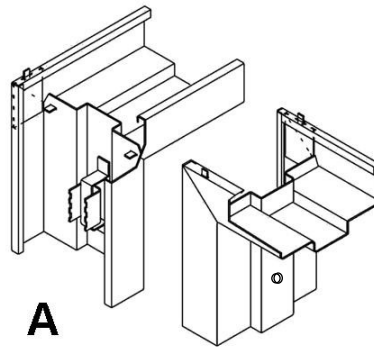
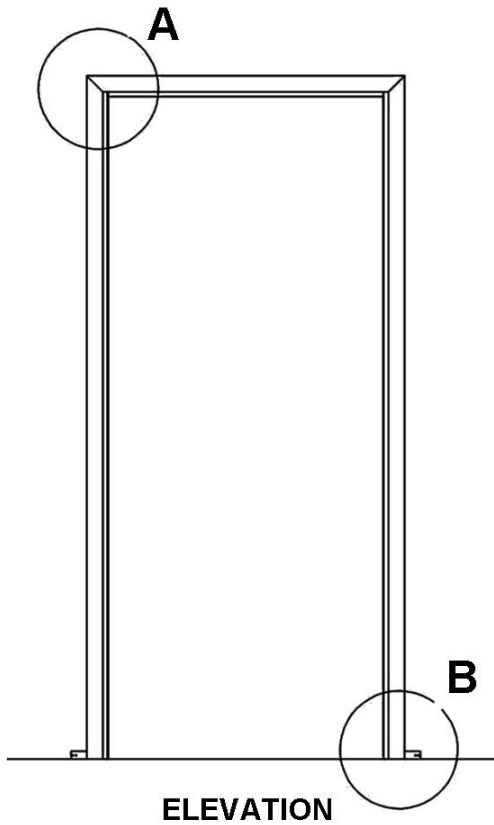
32
SAN MATEO COUNTY HEALTH
CENTER
SAN MATEO, CA

Hollow Metal Panel Installation

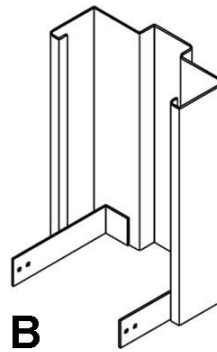


Sandwich Panel Installation

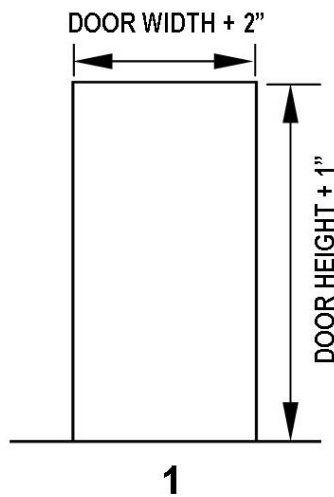




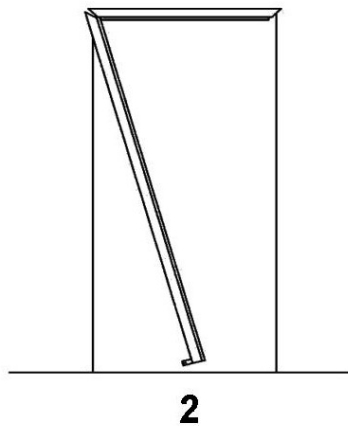
**OPPOSITE VIEWS OF
CORNER MITRE**



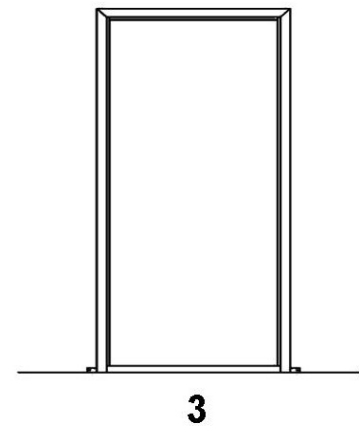
Drywall frames are designed for quick installation after the walls are in place including drywall. Frame members are shipped unassembled for field assembly and installation.



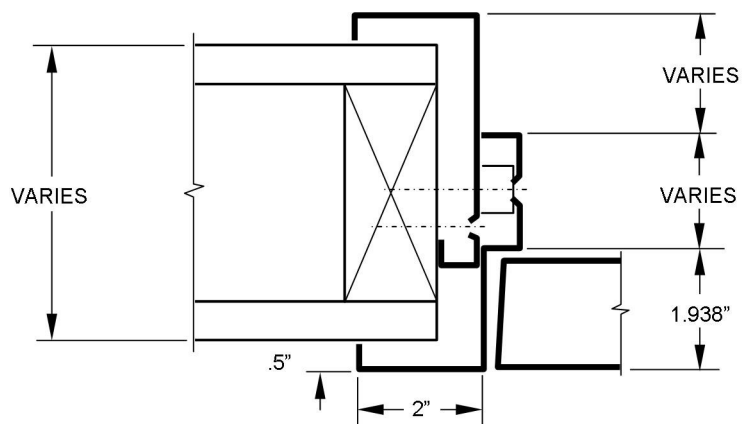
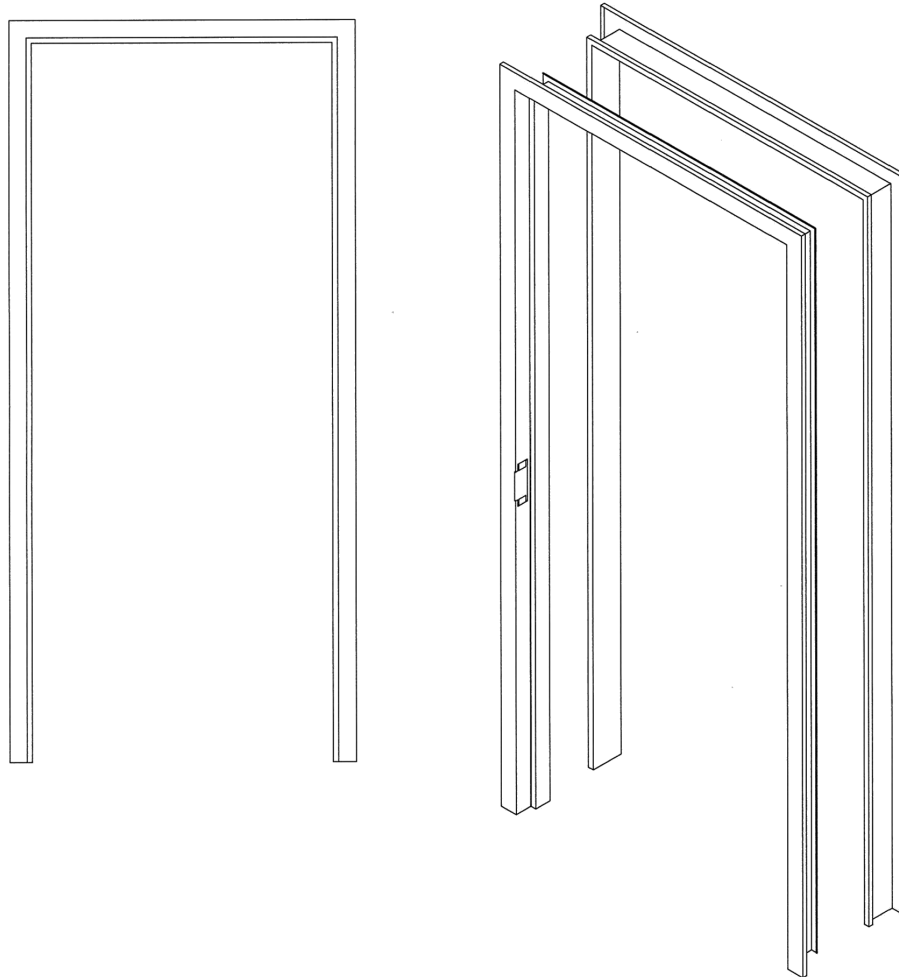
Install drywall before frame.



Push head into place, interlock jambs to head and pivot into place. Bend tabs over.



Place spreader at bottom to insure proper width. Fasten Bottom anchors to wall. Adjust pressure anchors to plumb frame.



Specifications

Gauge	16 or 14 GA
Material	1. Cold Rolled 2. A-60 Galvanized
Fire Rating	Up to 1-1/2 HR

*SPECIFY WALL THICKNESS

Seal-Tek At A Glance

Effectively Seals:

- Smoke
- Noise
- Weather

Fire Tested

- Seal-Tek design many be incorporated into any of our labeled assemblies.

Applications

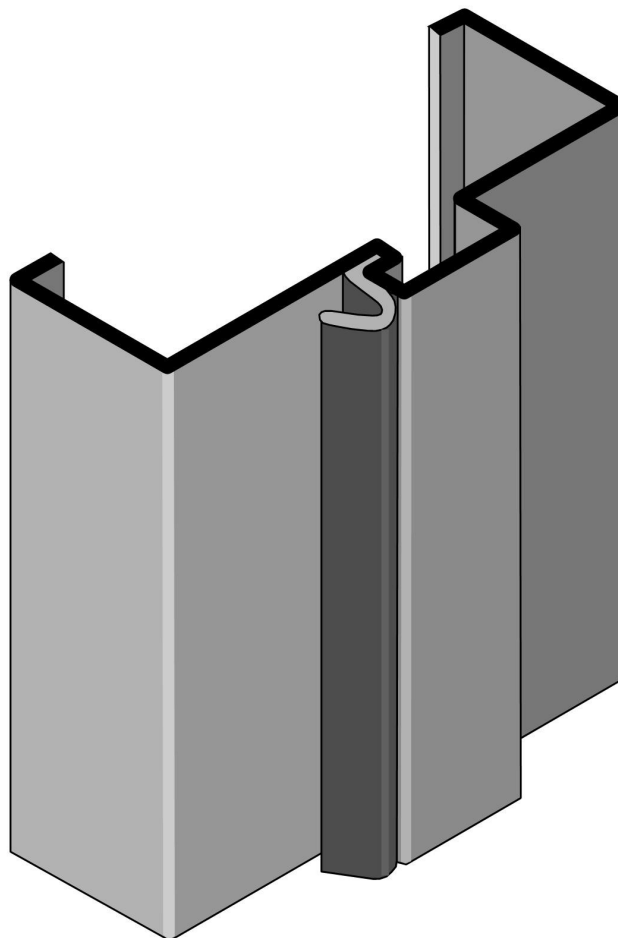
- Stairwells
- Corridor Entrances
- Computer Rooms
- Equipment Rooms
- Pharmaceutical Labs
- Any Interior or Exterior Location

Construction

- Manufactured in our factory, either welded or KD. Frame is made from 16 GA material. Kerf type weather strip is fully (and easily) replaceable.

Kerf Seal

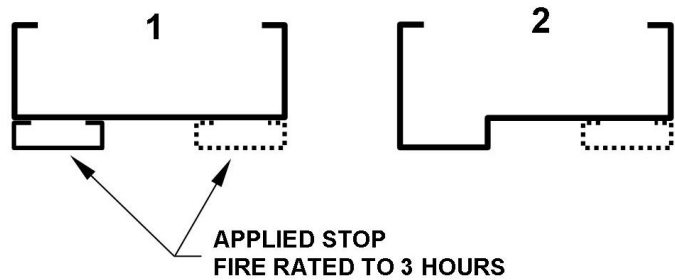
- UL10C listed, available in bronze, white, black, gray, and beige. Seal is installed on the job after finish paint.



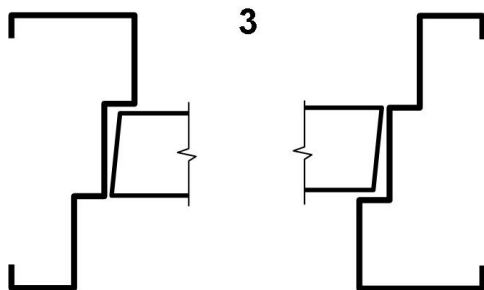
Stiles Model No. FDE

Available via Quick Ship: See [Quick Ship Section](#)

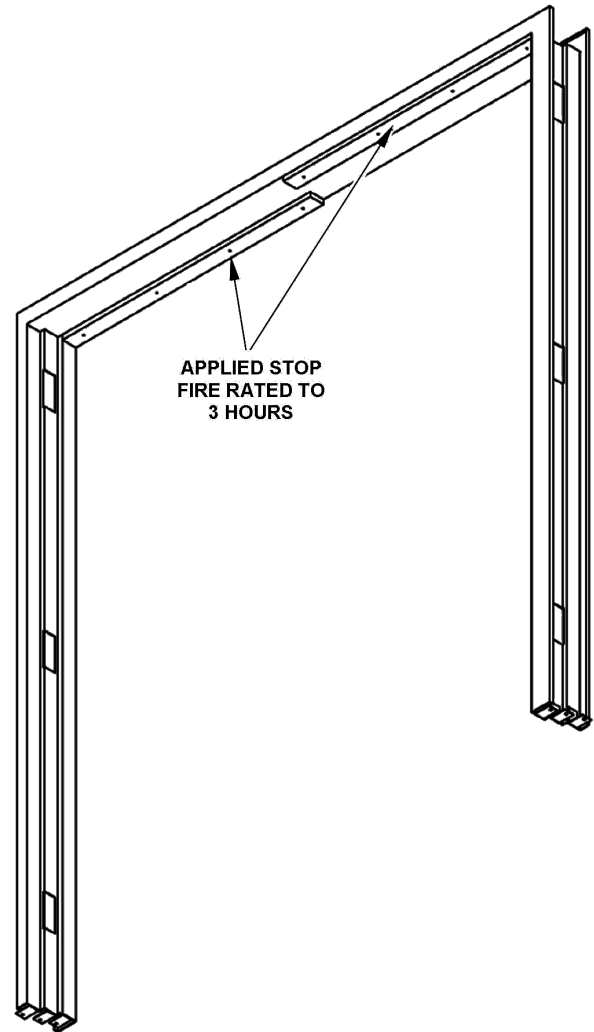
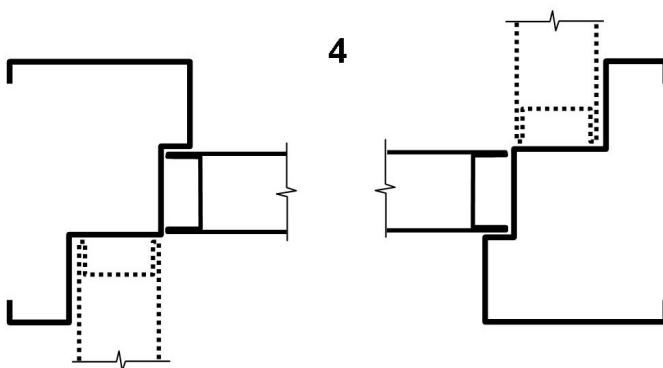
HEAD SECTIONS



STANDARD JAMB SECTIONS



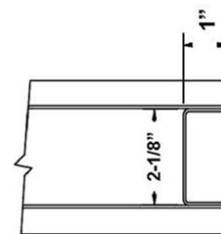
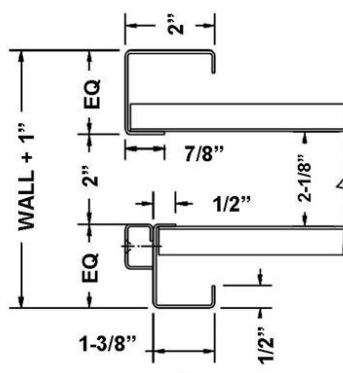
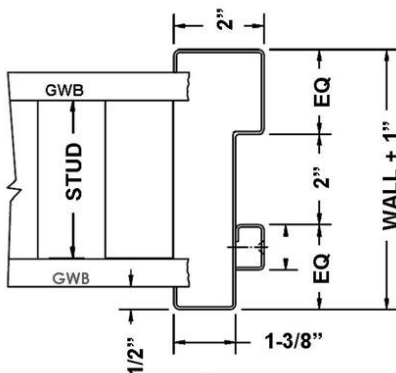
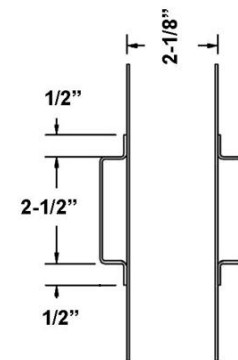
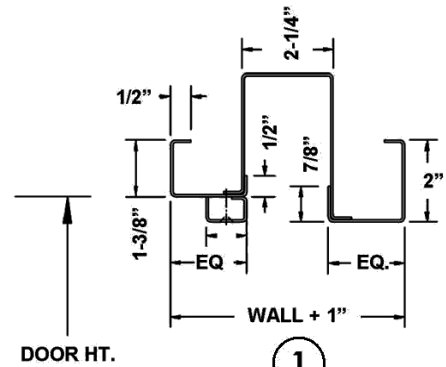
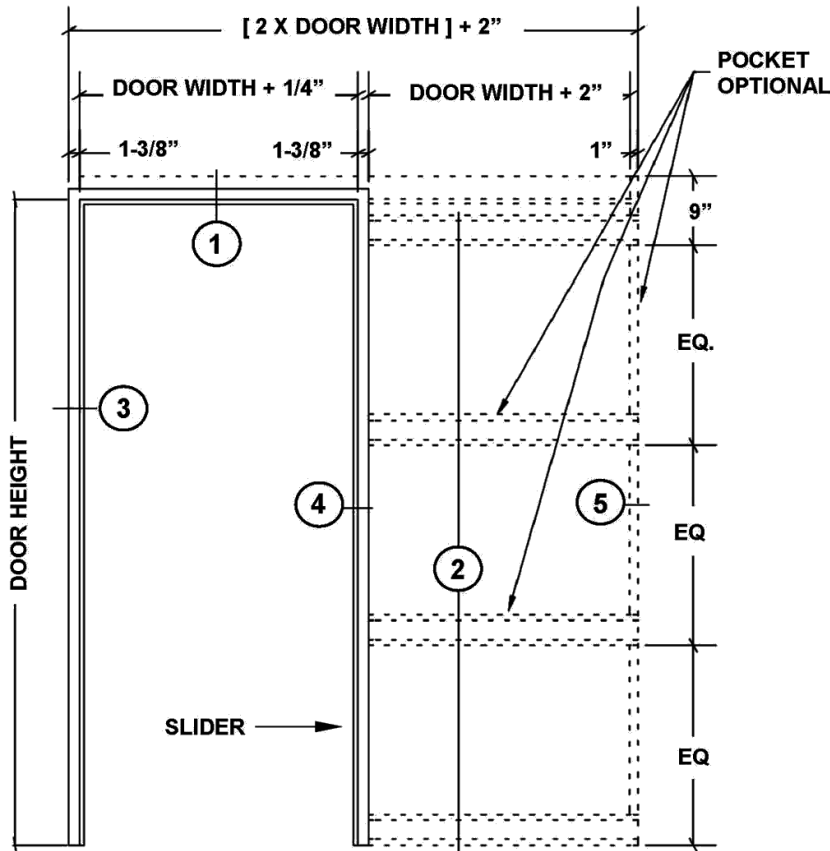
WALL POCKET JAMB SECTIONS

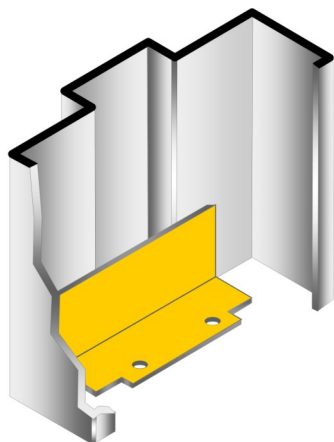


Construction

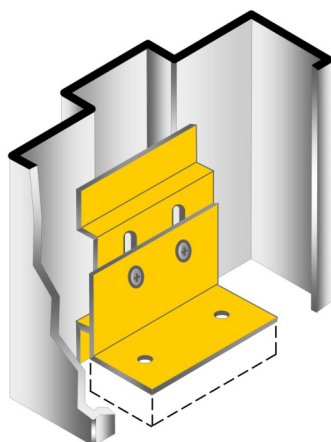
Gauge	16, 14, or 12 GA
Head Construction	Cased open with applied stop or two-piece welded in middle

Available via 10-Day Quick Ship: See [Quick Ship Section](#)
*Frame only

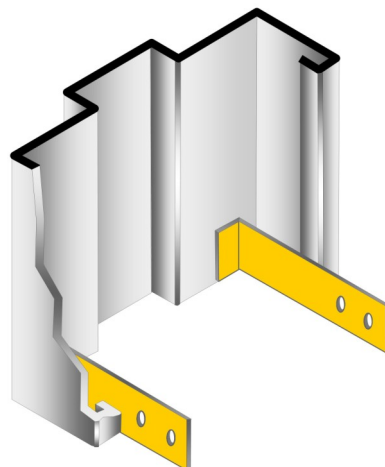




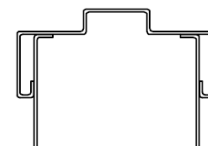
T-6 FLOOR ANCHOR



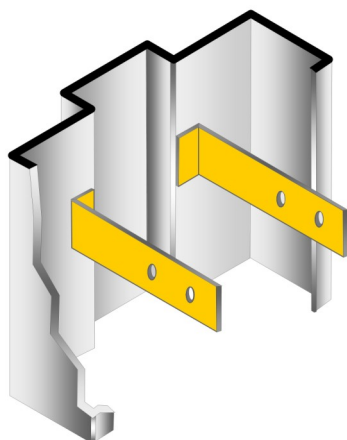
T-7 FLOOR ANCHOR



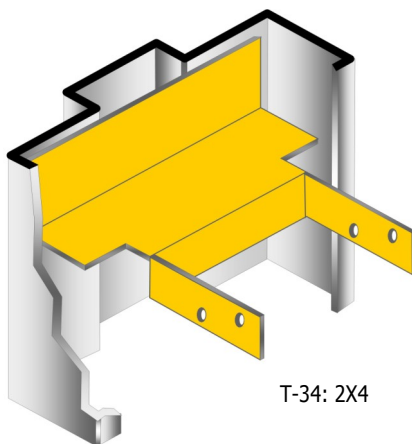
T-1 FLOOR ANCHOR



T-1 PLAN VIEW

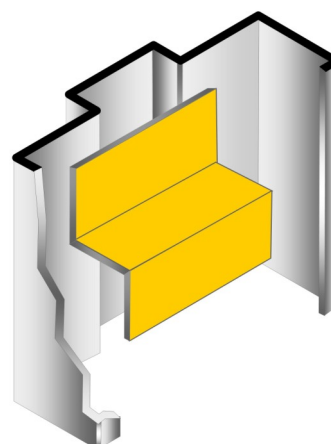


T-12 STUD WALL ANCHOR

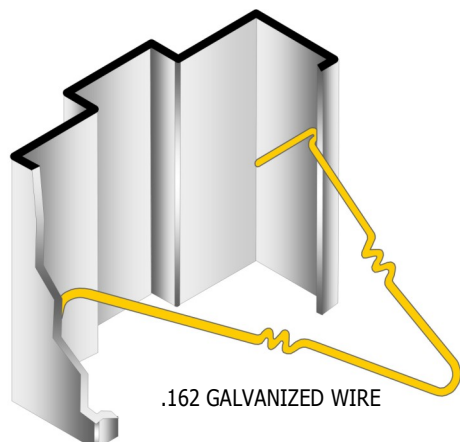


T-30 SERIES STUD WALL ANCHORS

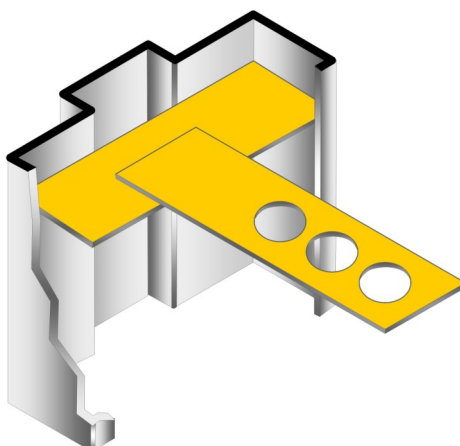
T-34: 2X4



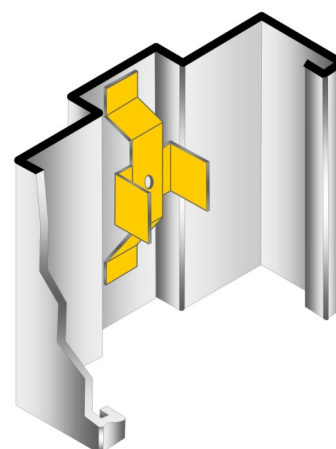
T-18 METAL STUD WALL ANCHORS



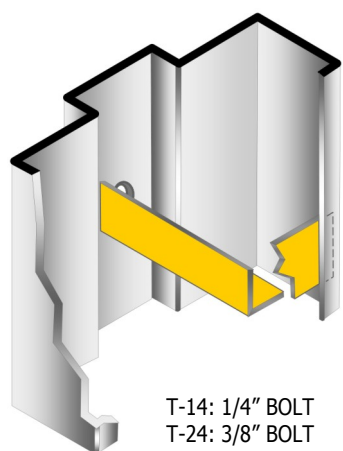
T-9 MASONRY ANCHOR



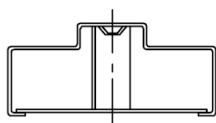
T-10 MASONRY ANCHOR



KDPL
(FOR KNOCKDOWN FRAMES)

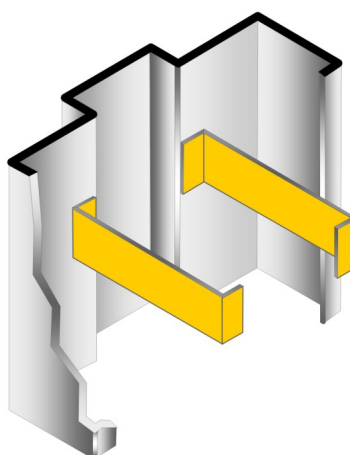


PUNCH & DIMPLE
(FOR EXISTING WALLS)

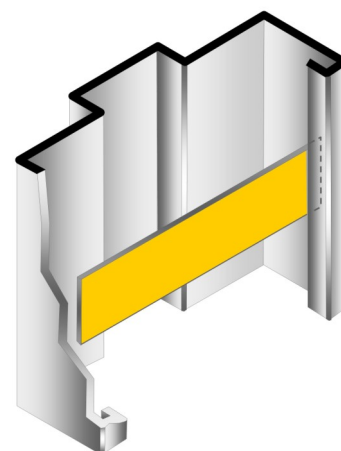


T-14, T-24 PLAN VIEW

T-14: 1/4" BOLT
T-24: 3/8" BOLT
(BOLT BY OTHERS)



T-13
POUR-IN-PLACE ANCHOR



T-16
METAL STUD WALL



Oregon Convention Center
Portland, OR
ZGF Architects

Audia™
Sound Control Doors, Windows & Storefront Systems

Sound Control with *Style...*

Because Audia™ acoustic doors and windows are built-to-order, opportunities exist to create signature-piece steel, stainless steel, bronze, and wood entrances for recording and TV broadcasting studios, schools, theaters, courtrooms, and all industrial applications.

- Doors to STC 55
- Windows to STC 59
- Steel, Stainless Steel, Bronze and Wood
- Acoustic Glass & Glazing Options
- Frame Profiles for all Wall Types
- Custom Built to Your Requirements
- Sustainable Materials and Construction Processes

Multiple features including:

- Bullet Resistant
- Fire Rated

Section Contents

Sound Control Information	SC-1.0
STC Door + Window Charts	SC-1.1 to 1.2
Metal Sound Control Door	SC-2.0.6 to 2.15.1
Wood Sound Control Door	SC-2.W1 to 2.W7
Sliding Sound Control Doors	SCS-1.0 to 1.1
Sound Control Windows	SC-3.1 to 3.10

Sound Control Data

Sample Elevations	SC-4.0
Seals, Door Bottoms	SC-5.0 to 5.1
Sound Frames & Anchor	SC-6.0 to 6.2
Vision Lite Mouldings	SC-7.0 to 7.1
Cam Lift Hinges	SC-8.0
STC Concerns & Solutions	SC-9.0 to 9.1
Sound Control Projects	SC-10.0
Specifications	Appendix



Environmental Data

Stiles uses no lead, asbestos or formaldehyde in the construction of our sound control doors or windows.

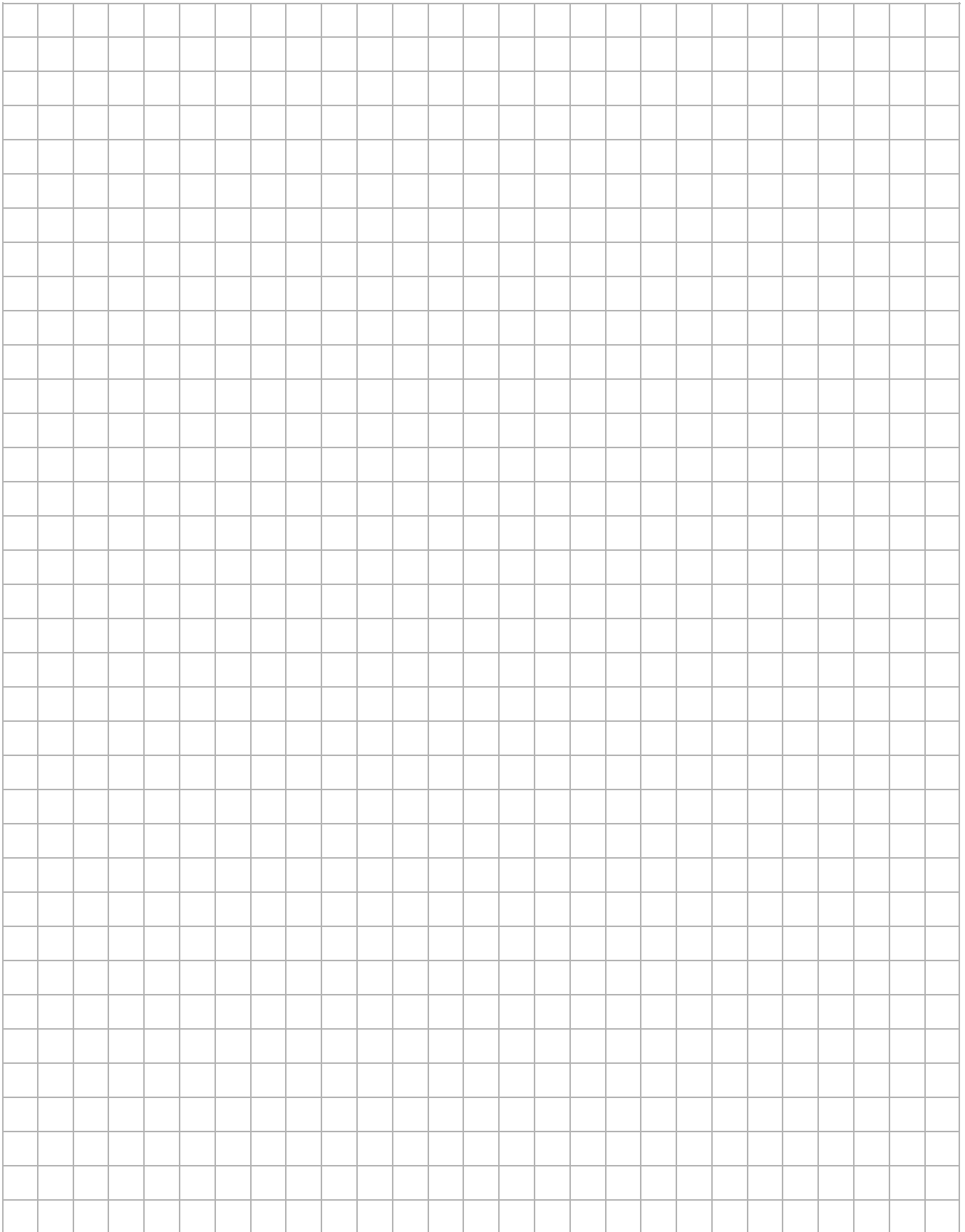
All resins and bonding agents utilized in fabrication are low VOC / environmentally friendly. Stock sheet materials are ordered to make provision for minimal waste.

The recyclability and superior longevity of Stiles sound control doors and windows make them truly sustainable products.

MADE IN THE USA



Notes



What is STC and OITC?

STC stands for "Sound Transmission Class," a measure of the extent to which sound is prevented from being transferred from one area to another. The higher the STC value, the less that sound can be transferred from one space to another. The STC scale is a logarithmic progression, meaning that, for instance, a jump of 3 points in an STC rating equates to a doubling in a door's ability to prevent sound transmission. Sound retardant doors are tested as a unit comprised of a door, frame, hinges and sound sealing system. The chart below illustrates the sound retardant performance associated with a range of STC values.

OITC stands for "Outdoor / Indoor Transmission Class," a rating system developed in ASTM E-1332, was formed in the late 1980s to respond to the perceived need for a more robust classification system that addresses more of the low frequency incident sounds. OITC measures the ability of a product to reduce the overall noise of ground and air transportation. The OITC rating is similar to the STC rating in that it uses ASTM E-90 TL data to derive a single number rating system that increases with increasing sound isolation ability.

STC Ratings

STC Value	Rating	Description
50-60	EXCELLENT	Loud speech heard faintly or not at all
40-50	VERY GOOD	Loud speech heard faintly, but not understood
35-40	GOOD	Loud speech heard but hardly intelligible
30-35	FAIR	Loud speech heard and understood fairly well
25-30	POOR	Normal speech heard and understood easily and distinctly
20-25	VERY POOR	Loud speech audible

Sound Control vs. Standard Hollow Metal Doors

How does an acoustic (sound control) door and frame assembly differ from standard hollow metal? An acoustic unit is comprised of a door, door frame, perimeter and bottom seals. The unit is tested in an independent laboratory. The door must be operable and the test standard (ASTM E90-90, ASTM 413-87) comprises tests at 105 decibels over 18 distinct frequencies.

The following chart is only a modest representation of our capabilities. Our engineering staff, with over 60 years of experience designing and building sound assemblies, can assist you in determining the best solution for your project.

Steel Sound Control Door Assemblies

STC	OITC	Model #	Type	Seals	Door Bottom	Glass Area (sq in)	Weight (#/sf)	Notes (see below)	Catalog Page
52	38	DS64-52	Single	PS1	ADB8		13.2	1, 4, 5, 6	SC-2.1.0
51	37	DS68-51	Single	PS1	ADB8		13.2	1, 4, 5, 6	SC-2.2.0
51	38	DSG42-51	Single	PS1	ADB8	374	12.5	1, 4, 5, 7, 8, 9	SC-2.2.1
51	39	DP31-51	Pair	PS1	ADB8		12	1, 4, 5, 6	SC-2.2.2
50	40	DS-50	Single	PS1	ADB8		10.4	1, 4, 5, 6	SC-2.3.0
50	39	DP32-50	Pair	PS1	ADB8		11.9	1, 4, 5, 6	SC-2.3.1
48	38	DS-48	Single	PS1	ADB5 or 5A		8.6	1, 3, 5, 6,	SC-2.4.0
48	38	DSG2-48	Single	PS1	ADB5 or 5A	374	11.5	1, 3, 5, 7, 8, 9	SC-2.4.1
46	37	DFG42-46	Single	PS1	ADB5 or 5A	1,470	12.8	1, 2, 3, 5, 7, 8, 9	SC-2.5.0
46	38	DSG4-46	Single	PS1	ADB5 or 5A	374	11.8	1, 2, 3, 5, 7, 8, 9	SC-2.5.1
44	33	DFG44-44	Single	PS6	ADB5 or 5A	1,470	11.5	1, 2, 3, 5, 7, 8, 9	SC-2.6.0
44	32	DS51-44	Single	PS6	ADB5 or 5A		7.4	1, 2, 3, 5, 6	SC-2.6.1
43	32	DS52-43	Single	PS9	ADB5 or 5A		7.4	1, 2, 3, 5, 6,	2C-2.7.0
42	36	DFG2-42	Single	PS6	ADB5 or 5A	1,470	11.3	1, 2, 3, 5, 7, 8, 9	SC-2.8.0
41	38	DP35-41	Pair	PS6	ADB5 or 5A		7.4	1, 2, 3, 5, 6	SC-2.9.0
40	34	DS8-1-40	Single	PS6 or PS13	ADB9		5.03	1, 2, 3, 5, 6	SC-2.10.0
40	31	DPS-4-40	Pair	PS6 or PS13	ADB9		11.8	1, 2, 3, 5, 6,	SC-2.10.1
38	34	DFG4-38	Single	PS6	ADB5 or 5A	1,470	10	1, 2, 3, 5, 7, 8, 9	SC-2.11.0
37	34	PDH-5-37	Pair	PS6 or PS13	ADB9		11.8	1, 2, 3, 5, 6	SC-2.12.0
36	34	DST7-1-36	Single	PS6 or PS13	ADB9		5.03	1, 2, 3, 5, 7, 8, 9	SC-2.13.0
35	32	DPH9-3-35	Single	PS6 or PS13	ADB9		5.03	1, 2, 3, 5, 7, 8, 9	SC-2.14.0
35	31	DPH6-1-35	Pair	PS6 or PS13	ADB9		11.8	1, 2, 3, 5, 7, 8, 9	SC-2.14.1
34	31	DSH9-1-34	Single	PS6 or PS13	ADB9		5.03	1, 2, 3, 5, 7, 8, 9	SC-2.15.0
34	31	DPH-6-34	Pair	PS6 or PS13	ADB9		11.8	1, 2, 3, 5, 7, 8, 9	CS-2.15.1

NOTES

1. Sound and fire rating with mortise or cylindrical locks.
2. Sound and fire rating with concealed vertical rod exit device, top rod only and inset / flush mounted exit bar.
3. Butt Hinges or Continuous Hinges.
4. Cam-Lift Hinges.
5. Perimeter seals, astragals and door bottom seals on all Stiles Audia™ assemblies are proprietary design.
6. Fire Rating 3 HR per NFPA 252, UBC 7.2, UL 10C Positive Pressure.
7. Fire Rating 20, 45, 60 & 90 minute per NFPA 252, UBC 7.2, UL 10C Positive Pressure (consult factory).
8. The glass area permitted in a fire rated door is determined by the glass manufacturer's testing.
9. At double-glazed fire rated units, one glass layer must be fire rated.

Wood Sound Control Door Assemblies

STC	OITC	Model #	Type	Seals	Door Bottom	Glass Area	Weight (#/sf)	Notes (see below)	Catalog Page
51	38	DSW-51	Single & Pair	PS1 & AST1	ADB8	374	12.5	1,4,5,7,8,9	SC-2.W1.0
50	38	DSW-50	Single & Pair	PS1 & AST1	ADB8	374	12.5	1,4,5,7,8,9	SC-2.W2.0
46	36	DSW-46	Single	PS1	ADB5 or 5A	374	11.8	1,2,3,5,7,8,9	SC-2.W3.0
46	37	DSW-46F	Single	PS1	ADB5 or 5A	1470	12.8	1,2,3,5,7,8,9	SC-2.W3.1
41	38	DSW-41	Pair	PS7	ADB6		7.8	1, 3, 5, 7	SC-2.W4.0
40	36	DSW-40	Single & Pair	PS13	ADB9		9.8	1, 3, 5, 7	SC-2.W5.0
36	34	DTW-36	Single & Pair	PS13	ADB9		9.8	1, 3, 5, 7	SC-2.W6.0
35	35	DHW-35	Single & Pair	PS13	ADB9		9.8	1, 3, 5, 7	SC-2.W7.0

NOTES

1. Sound and fire rating with mortise or cylindrical locks.
2. Sound and fire rating with concealed vertical rod exit device, top rod only and inset / flush mounted exit bar.
3. Butt Hinges or Continuous Hinges.
4. Cam-Lift Hinges.
5. Perimeter seals, astragals and door bottom seals on all Stiles Audia™ assemblies are proprietary design.
6. Fire Rating 3 HR max per NFPA 252, UBC 7.2, UL 10C Positive Pressure.
7. Fire Rating 20 & 45 minute max per NFPA 252, UBC 7.2, UL 10C Positive Pressure (consult factory).
8. The glass area permitted in a fire rated door is determined by the glass manufacturer's testing.
9. At double-glazed fire rated units, one glass layer must be fire rated.

Fixed Sound Control Windows

STC	OITC	Model #	Frame Min.	Glass Area (sq in)	Glass Type	Notes (see below)	Catalog Page
59	48	W-23-59	8-1/4"	3,456	1/2" Laminated X 3/4" Laminated	1, 2	SC-3.1.0
57	46	W42-57	7-3/4"	3,456	1/4" Laminated X 1/2" Laminated	1, 2	SC-3.2.0
56	46	W42-56	7-1/2"	3,456	1/4" Laminated X 1/2" Laminated	1, 2	SC-3.3.0
51	41	W42-51	7-1/2"	2,880	1/4" Laminated X 1/4" Laminated	1, 2	SC-3.4.0
49	39	W44-49	6-3/4"	2,880	1/4" Laminated X 1/4" Laminated	1, 2	SC-3.5.0
34	30	W4-34	4-1/2"	2,880	1/4" Laminated	2	SC-3.10.0

NOTES

1. At double-glazed fire rated units, one glass lite must be fire rated.
2. Fire rating for 1-1/2 HR max., per UBC 7.4, ASTM E2010, UL9 Positive Pressure, NFPA 257, NFPA 80.

STC 52

Model DS65-52 / Sound Control Door Assembly

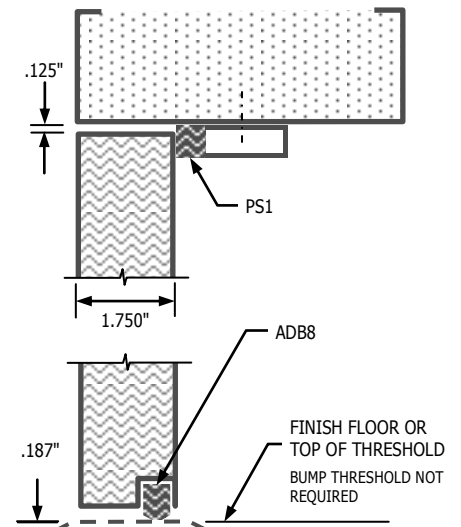
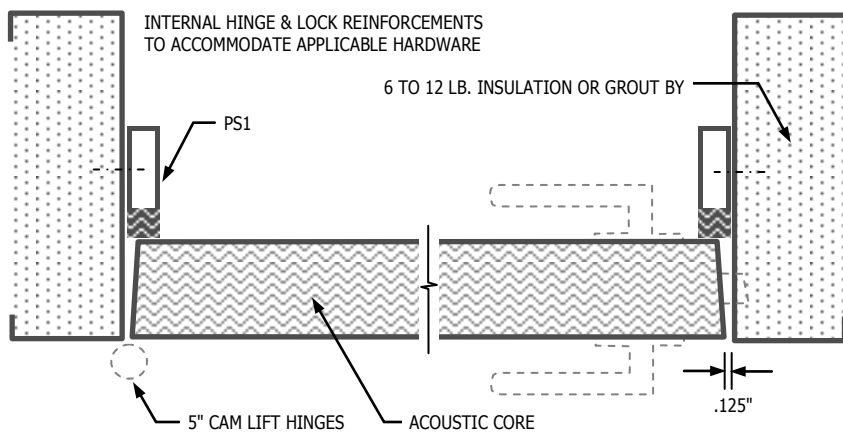
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, 5" cam-lift hinges, sound seals and door bottom seal; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	13.2 lbs. per sq. ft. Weight must be considered in wall design.
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB8 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	5" Cam-Lift Hinges provided. All other hardware including threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant
Quick Ship	5 or 10-Day See Quick Ship



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL03-408

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
52	38	28	32	35	38	47	47	47	50	51	52	53	54	56	55	55	57	59	59



STC 51

Model DS68-51 / Sound Control Door Assembly

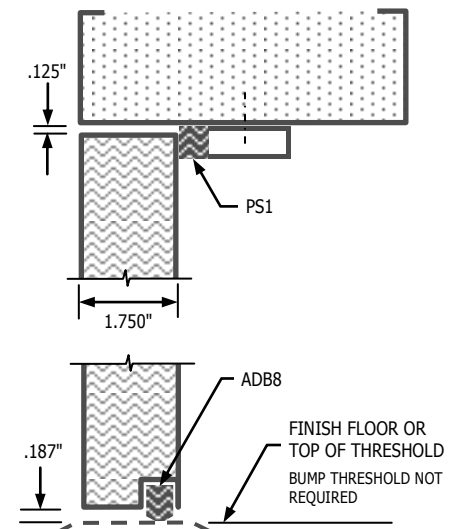
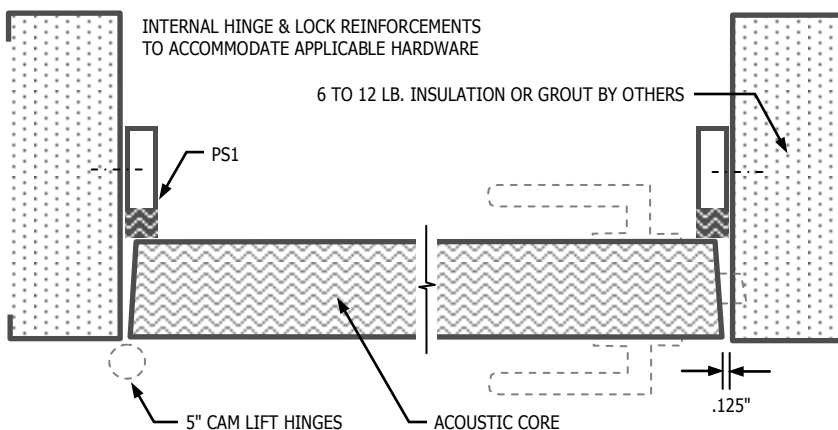
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, 5" cam-lift hinges, sound seals and door bottom seal; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	13.2 lbs. per sq. ft. Weight must be considered in wall design,
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB8 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	5" Cam-Lift Hinges provided. All other hardware including threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer; standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant
Quick Ship	5 or 10-Day See Quick Ship



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL03-411

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
51	37	28	32	35	38	48	49	48	50	51	52	52	53	54	52	54	57	60	61



STC 51

Model DSG42-51 / Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, 5" cam-lift hinges, sound seals, door bottom seal and lite kit; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	12.5 lbs. per sq. ft. including glass. Weight must be considered in wall design.
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB8 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Glazing	1. 1/4" + 1/2" Laminated acoustic glass required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	5" Cam-Lift Hinges provided. All other hardware including threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 1-1/2 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant

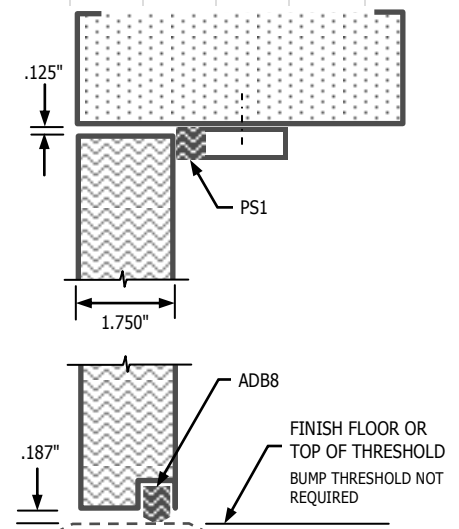
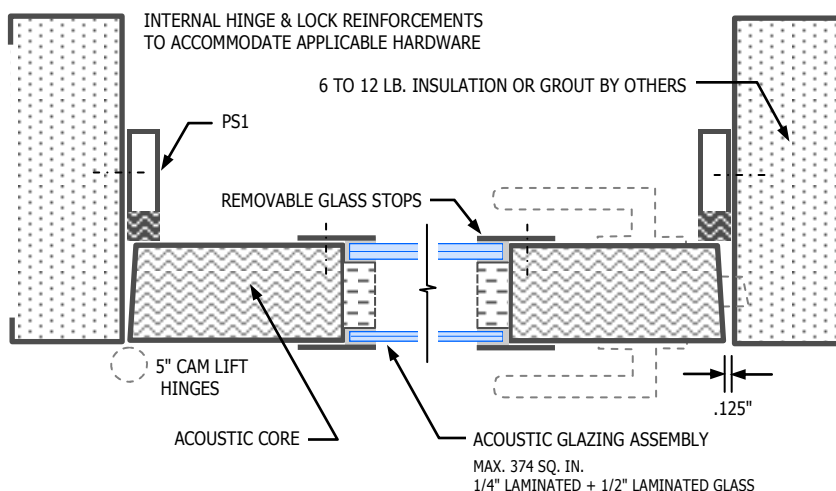


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL06-318

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
51	38	27	32	31	33	42	48	49	50	51	52	54	57	58	57	58	61	64	64



STC 51

Model DP31-51 / Sound Control Door Pair Assembly

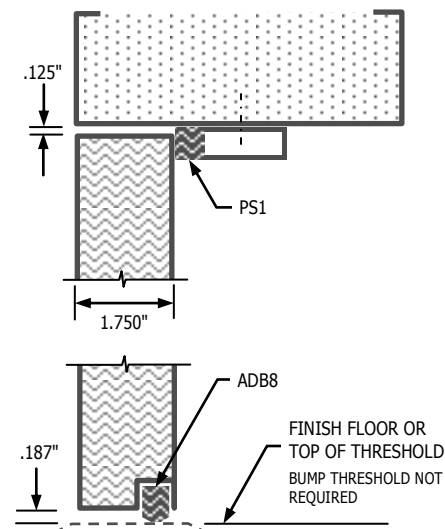
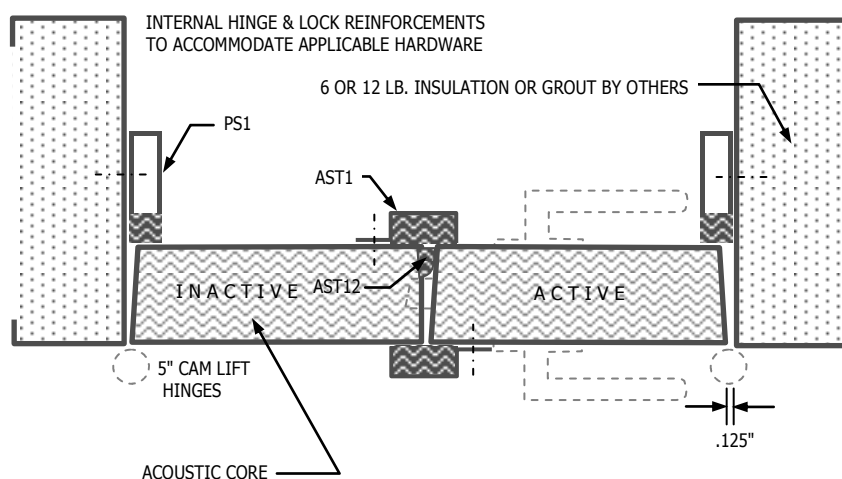
Assembly	Audia™ built-to-order acoustic door pair assemblies come complete with doors, frame, 5" cam-lift hinges, sound seals, door bottom seals; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	12.0 lbs. per sq. ft. Weight must be considered in wall design.
Sound Seals	PS1 (retainer to match frame), AST1, AST12
Bottom Seal	ADB8 adjustable flush-mounted. NOTE: Do not seal over carpet. Bump type thresholds not required.
Hardware	5" Cam-Lift Hinges provided. All other hardware including threshold, flush bolts & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 or 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, std. Finish paint also available See Finishes or Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant
Quick Ship	5 or 10-Day See Quick Ship



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL12-331

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
51	39	29	34	36	39	47	49	49	49	50	51	51	49	49	52	54	55	57	58



STC 50

Model DS-50 / Sound Control Door Assembly

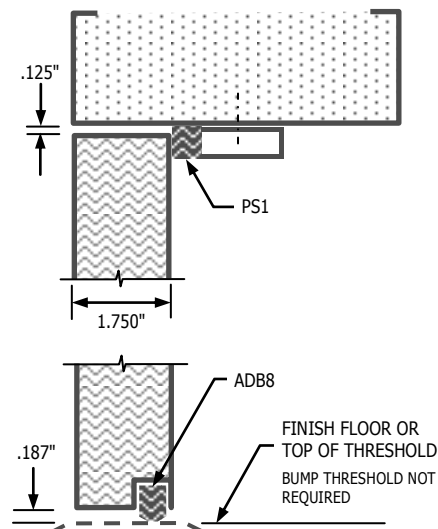
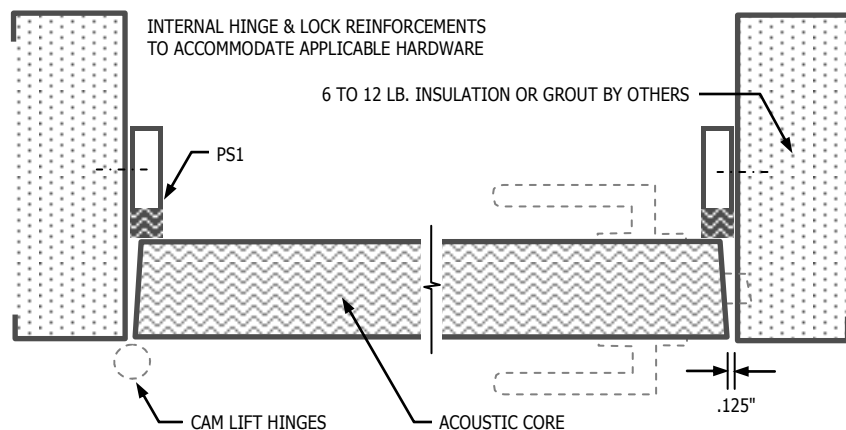
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, 5" cam-lift hinges, sound seals, and door bottom seal; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	10.4 lbs. per sq. ft. Weight must be considered in wall design.
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB8 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	Cam-Lift Hinges provided. All other hardware including threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL10-464

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
50	40	27	32	37	40	45	47	47	47	48	49	50	51	52	53	53	53	53	56



STC 50

Model DP32-50 / Sound Control Door Pair Assembly

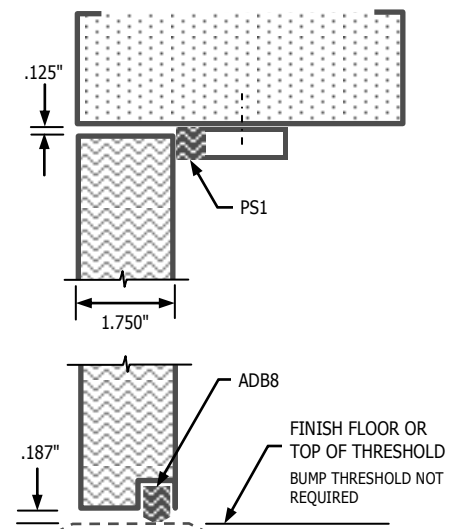
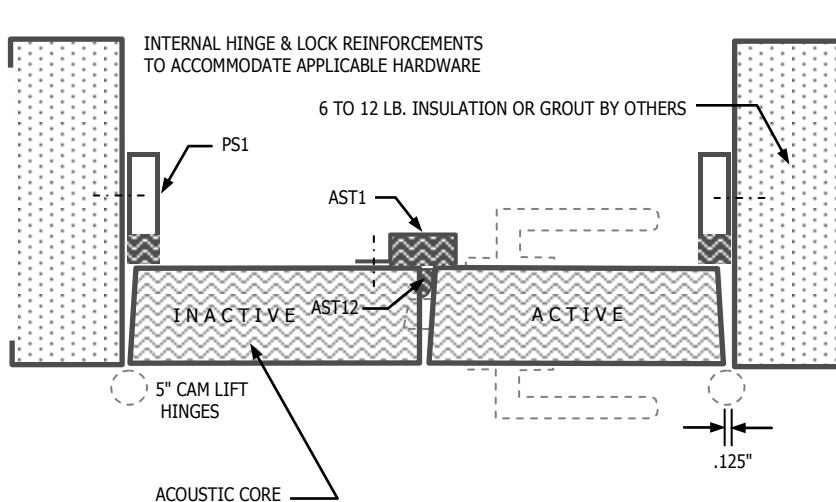
Assembly	Audia™ built-to-order acoustic door pair assemblies come complete with doors, frame, 5" cam-lift hinges, sound seals, door bottom seals; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	11.9 lbs. per sq. ft. Weight must be considered in wall design.
Sound Seals	PS1 (retainer to match frame), AST1, AST 12
Bottom Seal	ADB8 adjustable flush-mounted. NOTE: Do not seal over carpet. Bump type thresholds not required.
Hardware	Cam-Lift Hinges provided. All other hardware including threshold, flush bolts & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, std. Finish paint also available See Finishes or Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL12-332

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
50	39	30	34	36	40	47	49	49	49	50	51	51	49	49	52	53	53	56	57



STC 48

Model DS-48 / Sound Control Door Assembly

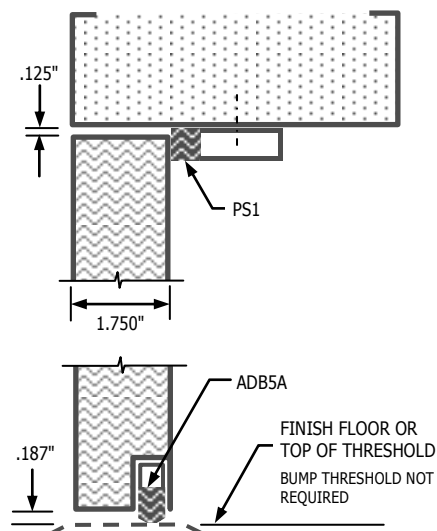
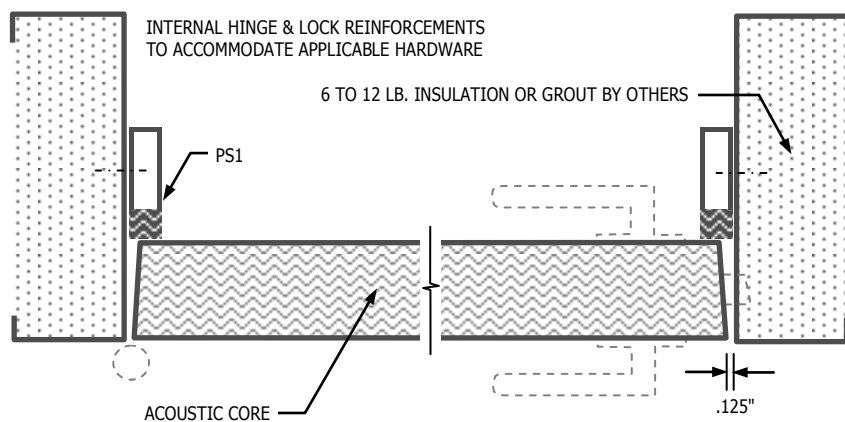
Assembly	Audia™ built-to-order acoustic steel door assemblies come complete with door, frame, sound seals, and door bottom seal; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	8.6 lbs. per sq. ft. Weight must be considered in hinge selection and wall design.
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required .
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL10-461

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
48	38	26	33	39	40	41	43	43	44	46	47	48	50	51	52	52	53	51	52



STC 48

Model DSG2-48 / Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, door bottom seal and lite kit; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead, asbestos & formaldehyde free
Door Weight	11.5 lbs. per sq. ft. including glass. Weight must be considered in wall design and hinge selection
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Glazing	1. 1/2" Laminated acoustic glass required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	Hardware not provided. Hinges, threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 1-1/2 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant

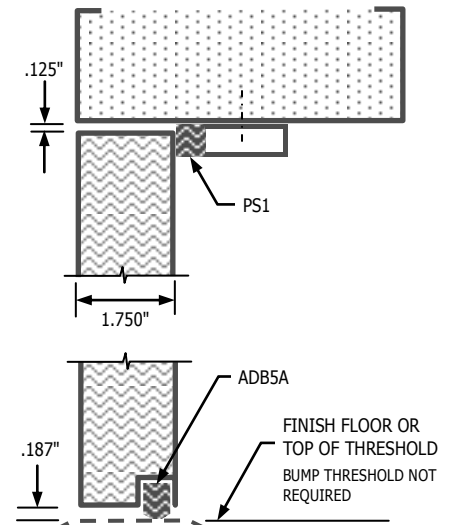
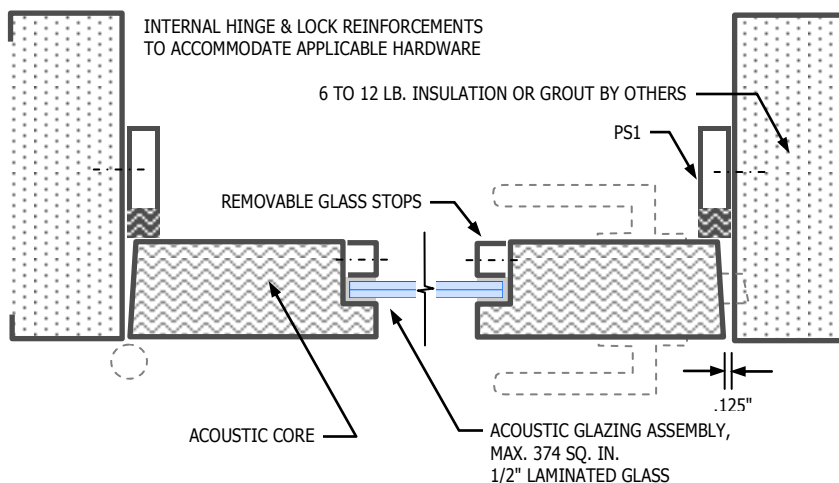


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL06-317

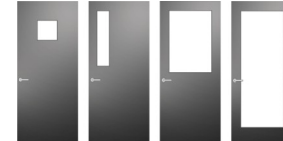
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
48	38	27	31	30	36	41	44	45	45	46	47	49	51	52	51	53	57	59	59



STC 46

Model DFG42-46 / Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, 5" cam-lift hinges, sound seals and door bottom seal; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	12.8 lbs. per sq. ft. including glass. Weight must be considered in wall design and hinge selection.
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Glazing	1. 1/4" + 1/2" Laminated acoustic glass required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	Hardware not provided. Hinges, threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 1-1/2 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant

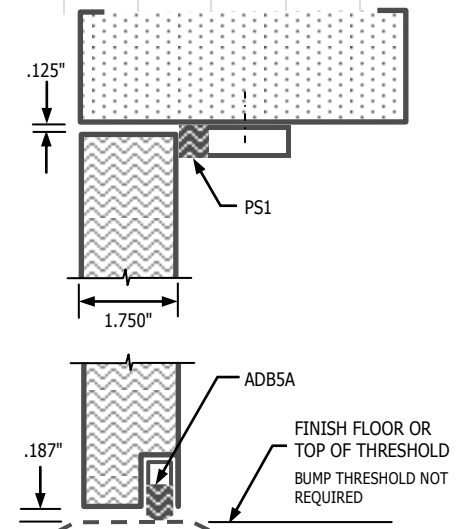
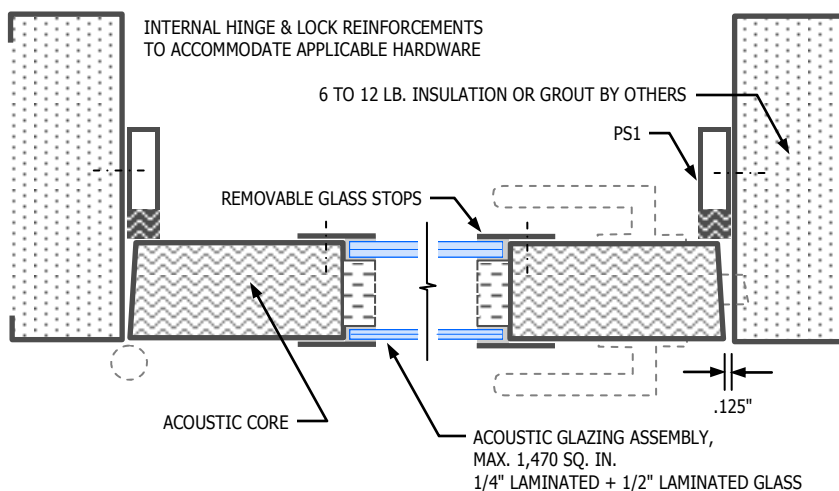


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL06-324

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
46	37	30	29	29	28	34	40	44	48	50	51	53	53	56	56	57	61	63	63



STC 46

Model DSG4-46 / Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, door bottom seal and lite kit; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	11.8 lbs. per sq. ft. including glass. Weight must be considered in hinge selection and wall design.
Sound Seals	PS1, NO Exposed Fasteners , retainer to match frame
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Glazing	1. 1/4" Laminated acoustic glass required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	Hardware not provided. Hinges, threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 1-1/2 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant

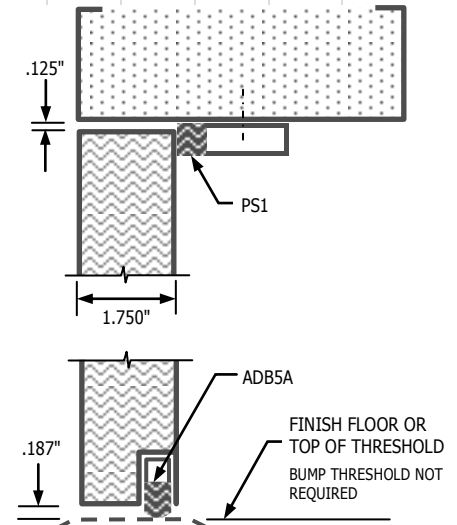
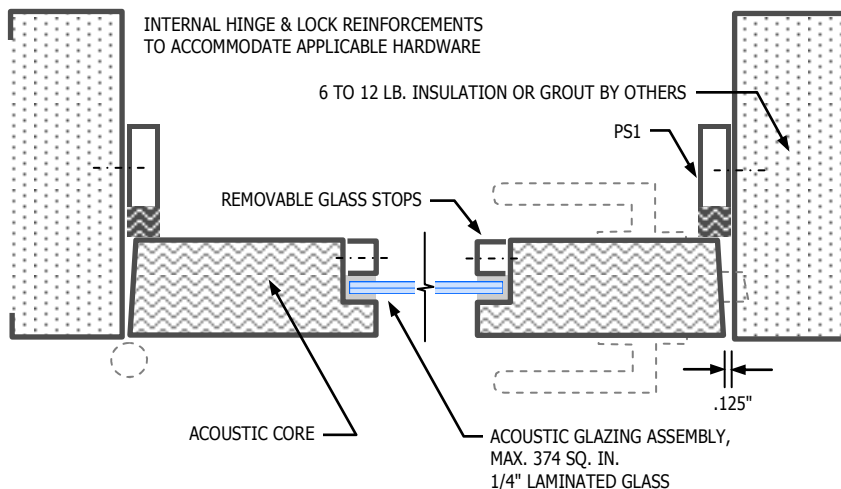


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL06-316

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
46	38	27	33	33	38	40	41	41	42	43	44	46	47	48	48	48	50	53	55



STC 44

Model DFG44-44 / Sound Control Door Assembly

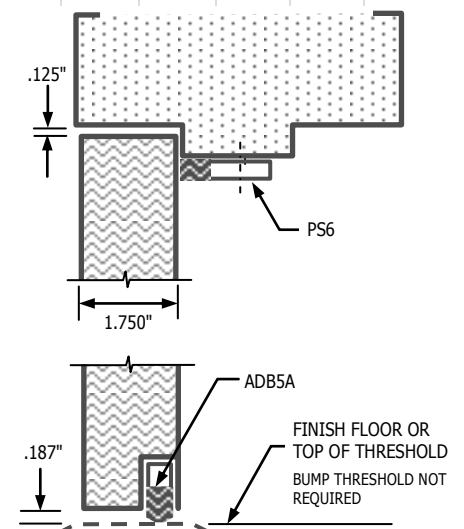
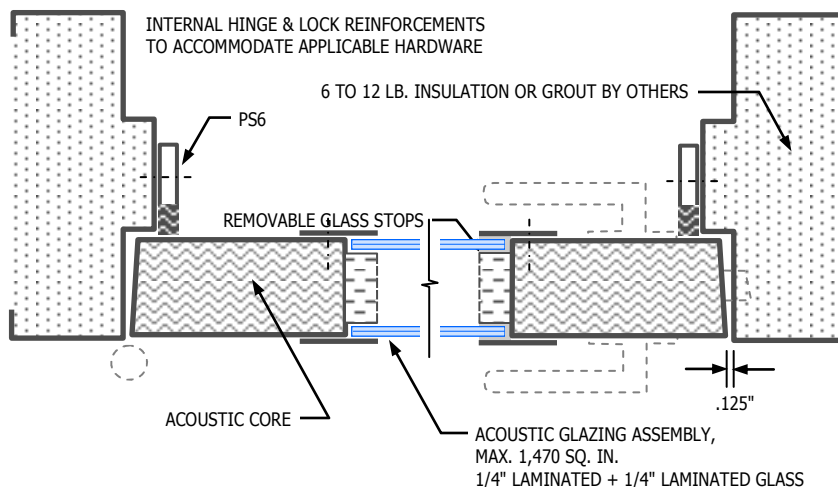
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, door bottom seal and lite kit; prime painted.
Mat. Options	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	11.5 lbs. per sq. ft. including glass. Weight must be considered in hinge selection and wall design.
Sound Seals	PS6
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Glazing	1. 1/4" + 1/4" Laminated acoustic glass required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	Hardware not provided. Hinges, threshold & latch-set can be provided and factory installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 1-1/2 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL06-322

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
44	33	28	20	26	29	33	40	41	47	49	50	52	54	54	52	53	58	62	63



STC 44

Model DS51-44 / Sound Control Door Assembly

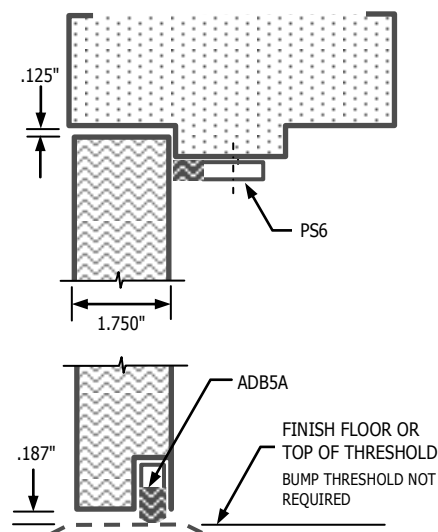
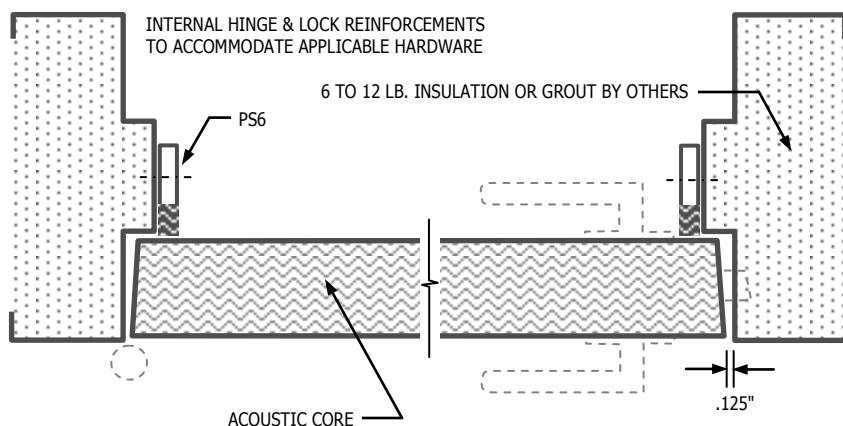
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, and door bottom seal; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	7.4 lbs. per sq. ft. Weight must be considered in hinge selection.
Sound Seals	PS6
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations NOTE: Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, ASTM E-413, ASTM E-1408 requirements, Test No. TL95-168

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
44	32	21	20	30	33	35	40	42	45	47	47	48	47	43	44	46	48	50	50



STC 43

Model DS52-43 / Sound Control Door Assembly

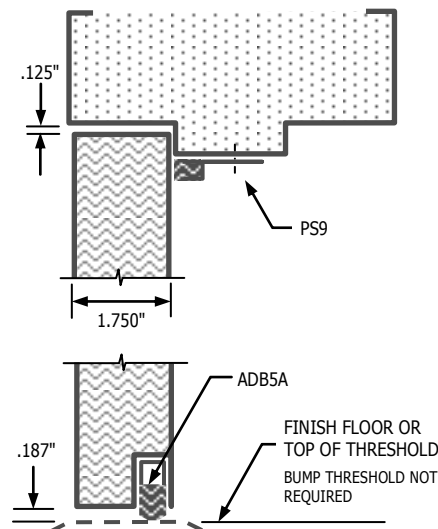
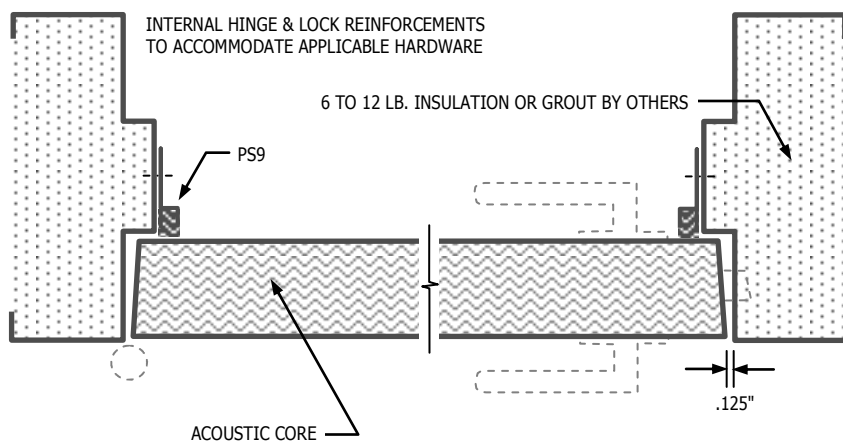
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, and door bottom seal; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead, asbestos & formaldehyde free
Door Weight	7.4 lbs. per sq. ft. Weight must be considered in hinge selection.
Sound Seals	PS9
Bottom Seal	ADB8 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations NOTE: Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, ASTM E-413, ASTM E-1408 requirements, Test No. TL95-169

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
43	32	20	19	30	33	36	40	42	45	48	49	50	53	54	54	52	57	60	62



STC 42

Model DFG2-42 / Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, door bottom seal and lite kit; prime painted.			
Material	1. Cold Roll	2. A60 Galvanized	3. Stainless Steel	4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"			
Core	Proprietary; lead , asbestos & formaldehyde free			
Door Weight	11.3 lbs. per sq. ft. including glass. Weight must be considered in hinge selection and wall design.			
Sound Seals	PS6			
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.			
Glazing	1. 1/2" Laminated acoustic glass required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance			
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.			
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)			
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes			
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 1-1/2 HR Rating See Fire Rated			
Bullet	Bullet resistant option available See Bullet Resistant			

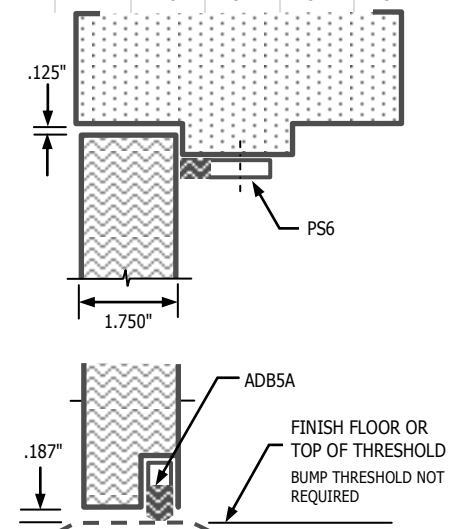
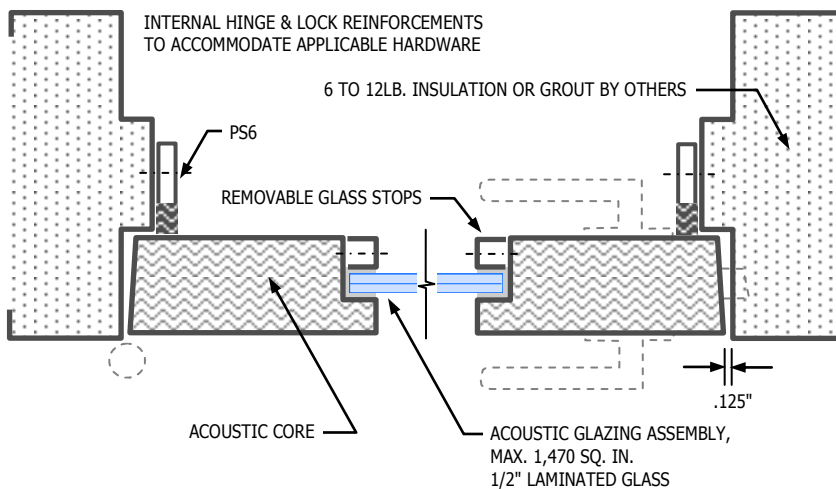


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

TEST DATA (Sound Transmission Loss in dB at frequency / hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL06-325

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
42	36	32	32	27	28	37	39	39	40	41	41	42	41	42	44	48	51	54	54



STC 41

Model DP35-41/ Sound Control Door Pair Assembly

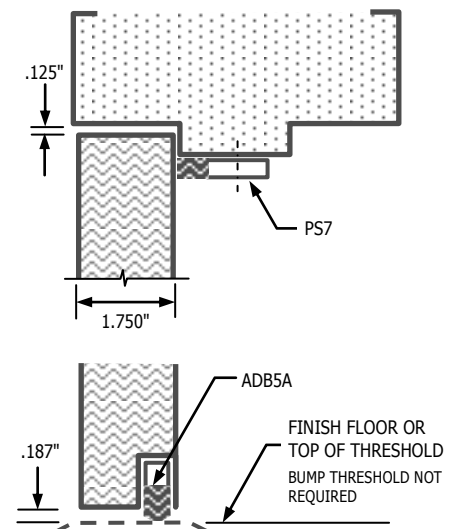
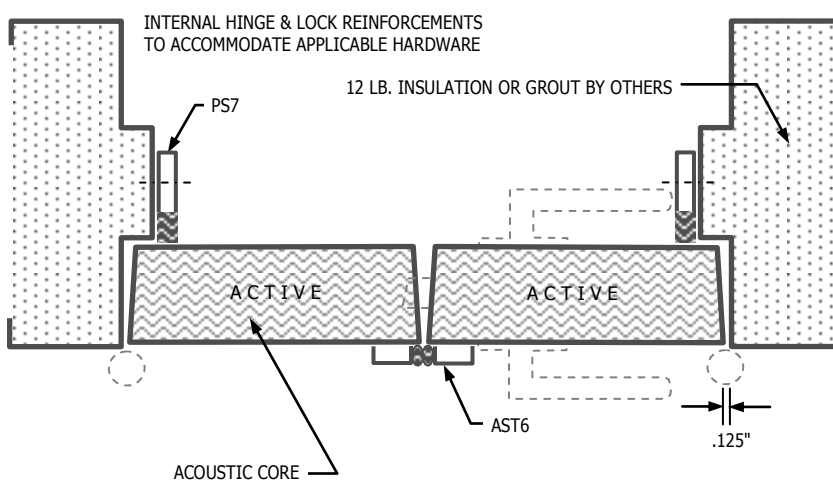
Assembly	Audia™ built-to-order acoustic door pair assemblies come complete with doors, frame, sound seals, door bottom seals; prime painted.
Material	Options: 1. A60 Galvanized 2. Stainless Steel 3. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	7.4 lbs. per sq. ft.
Sound Seals	PS7, AST6 (retainers to match frame)
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet. Bump type thresholds not required.
Hardware	Hardware not provided. Hinges, threshold, flush bolts and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, std. Finish paint also available See Finishes or Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL12-332

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
41	38	30	35	37	40	48	47	45	45	45	46	45	43	39	38	40	42	41	37



STC 40

Model DS8-1-40/ Sound Control Door Assembly

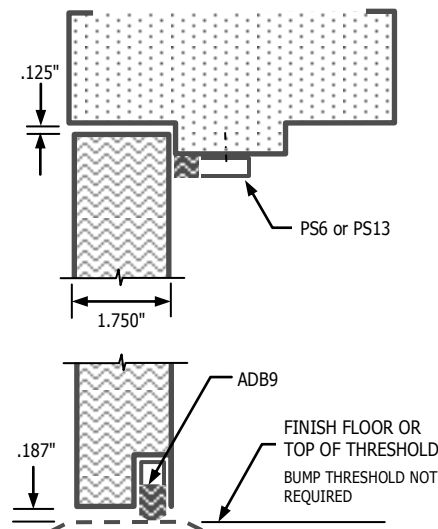
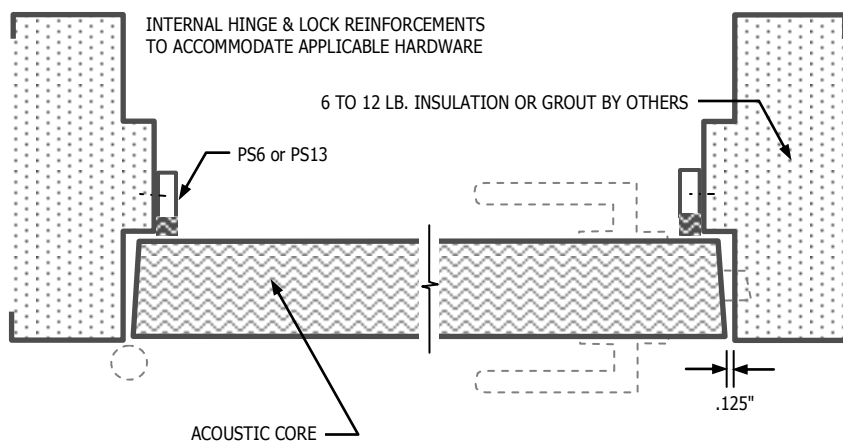
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, and door bottom seal; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	5.03 lbs. per sq. ft. NOTE: Weight must be considered in wall design.
Sound Seals	PS6 or PS13
Bottom Seal	ADB-5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	Hardware including hinges, threshold & latch-set can be provided and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, ASTM E-413, ASTM E-1408 requirements, Test No. TL13-577

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
40	32	22	22	26	28	29	34	37	41	42	39	39	41	42	44	44	43	42	43



STC 40

Model DPS-4-40/ Sound Control Door Pair Assembly

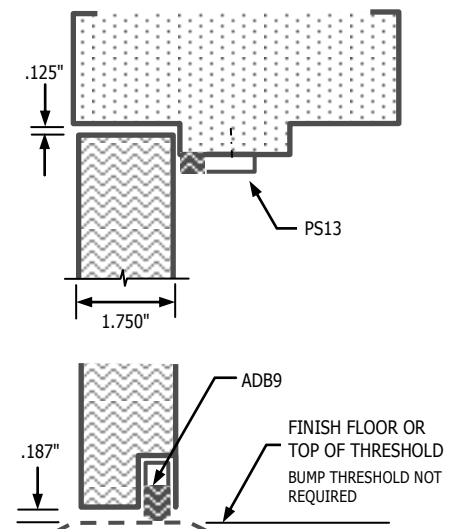
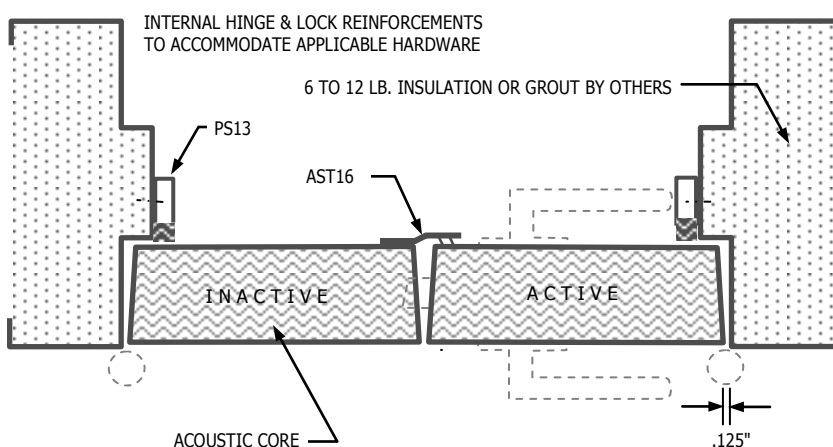
Assembly	Audia™ built-to-order acoustic door pair assemblies come complete with doors, frame, sound seals, door bottom seals; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	11.8 lbs. per sq. ft.
Sound Seals	PS13
Bottom Seal	ADB9 adjustable flush-mounted. NOTE: Do not seal over carpet. Bump type thresholds not required.
Hardware	Hardware not provided. Hinges, threshold, flush bolts and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, std. Finish paint also available See Finishes or Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL13-584

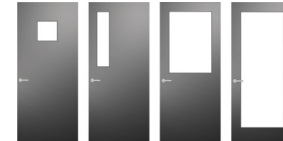
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
40	31	21	22	24	27	30	35	38	40	41	39	40	41	41	42	43	43	43	44



STC 38

Model DFG4-38 / Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, door bottom seal and lite kit; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	10 lbs. per sq. ft. including glass. Weight must be considered in hinge selection and wall design.
Sound Seals	PS6 or PS10
Bottom Seal	ADB5A adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Glazing	1. 1/4" Laminated acoustic glass required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 1-1/2 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant

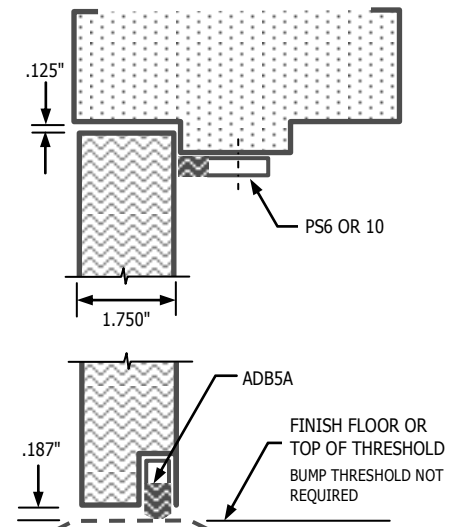
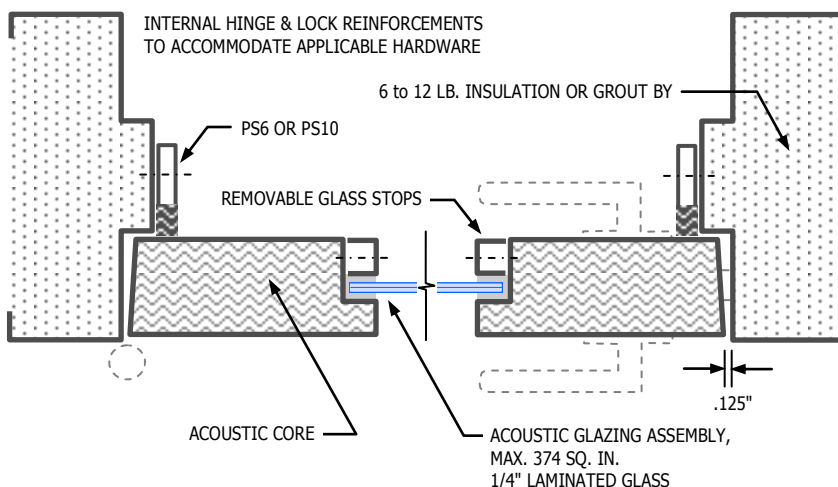


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, Test No. TL06-323

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
38	34	27	27	25	27	34	34	35	36	37	38	39	40	40	39	39	42	45	49



STC 37

Model PDH-5-37 Sound Control Door Pair Assembly

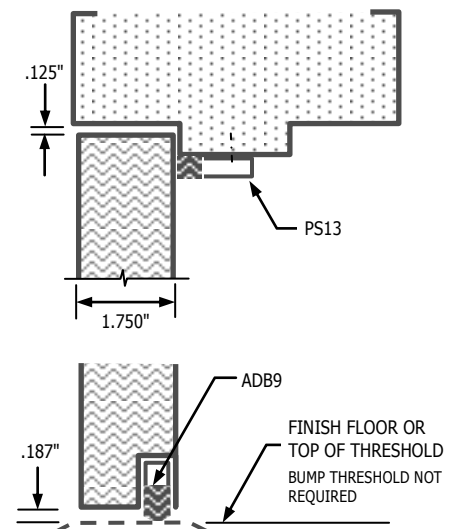
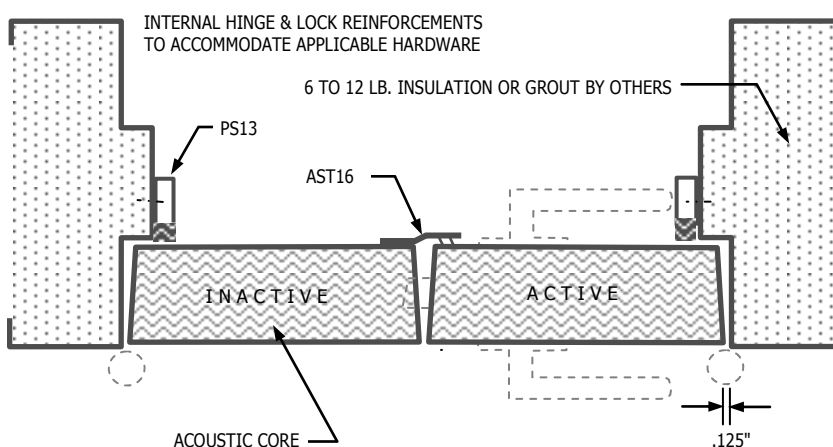
Assembly	Audia™ built-to-order acoustic door pair assemblies come complete with doors, frame, sound seals, door bottom seals; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	11.8 lbs. per sq. ft.
Sound Seals	PS13
Bottom Seal	ADB9 adjustable flush-mounted. NOTE: Do not seal over carpet. Bump type thresholds not required.
Hardware	Hardware not provided. Hinges, threshold, flush bolts and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, std. Finish paint also available See Finishes or Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL3-583

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
37	34	28	30	32	31	32	32	32	33	34	35	36	37	37	39	40	41	42	42



STC 36

Model DST7-1-36/ Sound Control Door Assembly

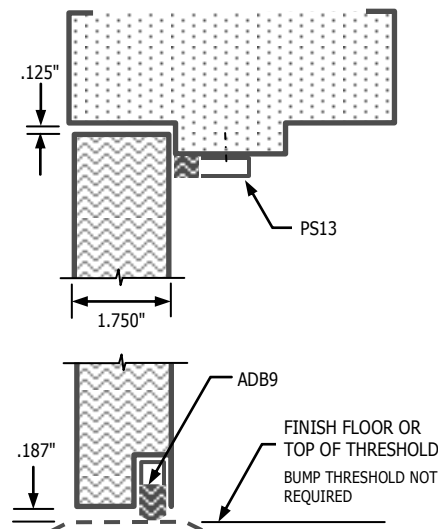
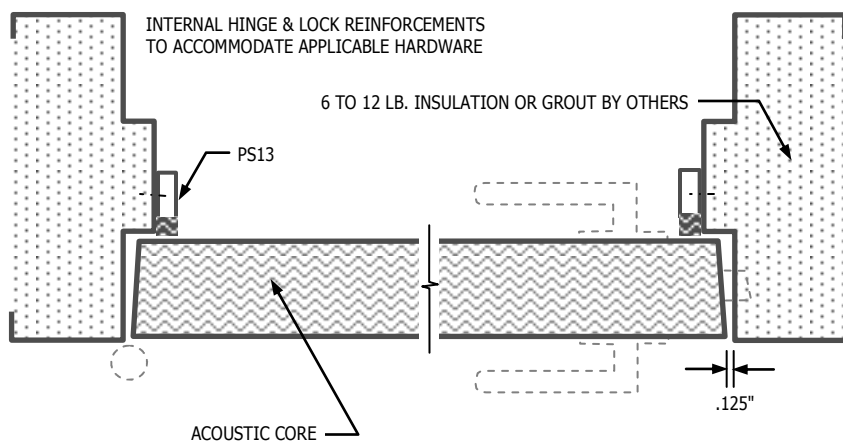
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, and door bottom seal; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	5.03 lbs. per sq. ft. NOTE: Weight must be considered in wall design.
Sound Seals	PS13
Bottom Seal	ADB-9 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	Hardware including hinges, threshold & latch-set can be provided and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, ASTM E-413, ASTM E-1408 requirements, Test No. TL13-579

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
36	34	29	30	31	31	31	30	32	33	33	34	36	38	40	40	40	40	40	42



STC 35

Model DPH 9-3-35/ Sound Control Door Assembly

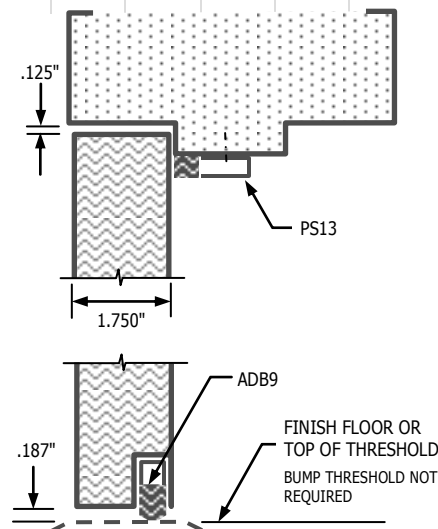
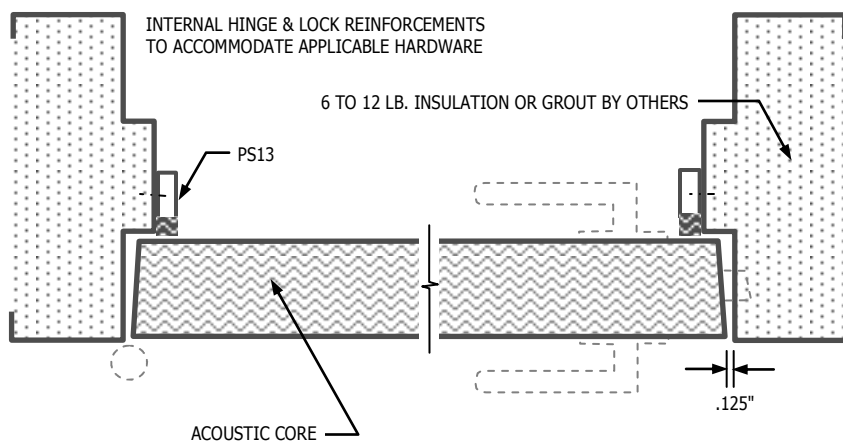
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, and door bottom seal; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead, asbestos & formaldehyde free
Door Weight	5.03 lbs. per sq. ft. NOTE: Weight must be considered in wall design.
Sound Seals	PS13
Bottom Seal	ADB-9 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	Hardware including hinges, threshold & latch-set can be provided and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, ASTM E-413, ASTM E-1408 requirements, Test No. TL13-579

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
35	32	28	27	26	27	30	30	31	32	34	35	36	37	36	36	37	36	39	43



STC 35

Model DPH6-1-35 Sound Control Door Pair Assembly

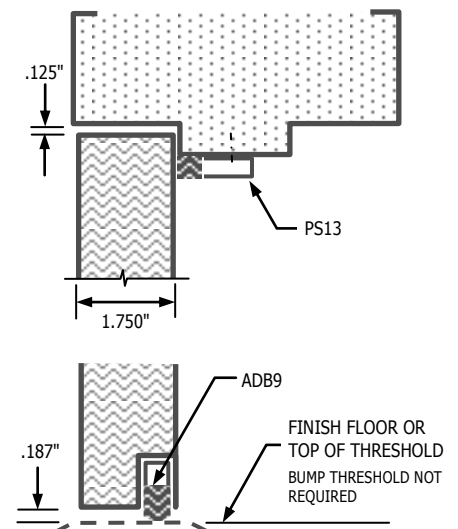
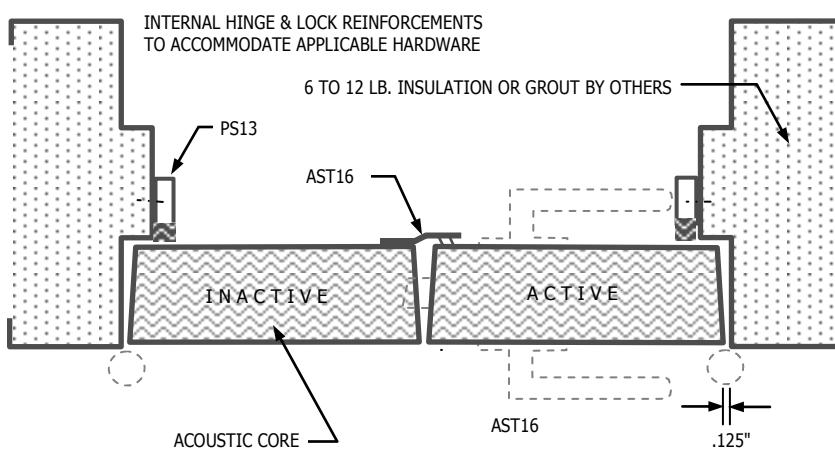
Assembly	Audia™ built-to-order acoustic door pair assemblies come complete with doors, frame, sound seals, door bottom seals; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	11.8 lbs. per sq. ft.
Sound Seals	PS13
Bottom Seal	ADB9 adjustable flush-mounted. NOTE: Do not seal over carpet. Bump type thresholds not required.
Hardware	Hardware not provided. Hinges, threshold, flush bolts and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, std. Finish paint also available See Finishes or Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL3-582

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
35	31	24	26	27	27	30	30	30	32	33	34	35	35	37	37	46	35	39	43



STC 34

Model DSH9-1-34/ Sound Control Door Assembly

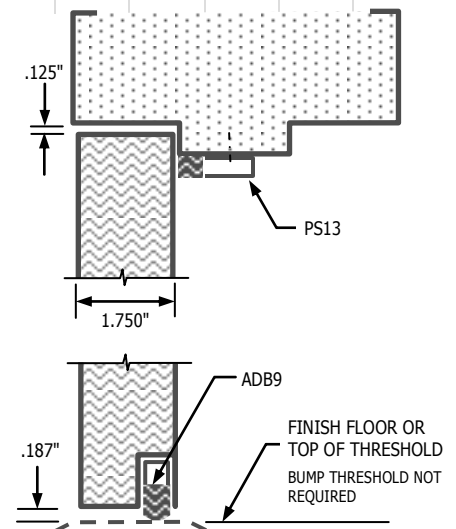
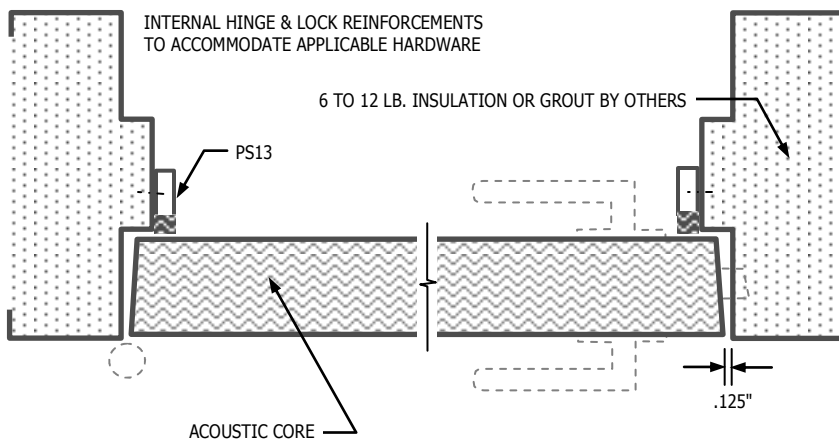
Assembly	Audia™ built-to-order acoustic door assemblies come complete with door, frame, sound seals, and door bottom seal; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead, asbestos & formaldehyde free
Door Weight	5.03 lbs. per sq. ft. NOTE: Weight must be considered in wall design.
Sound Seals	PS13
Bottom Seal	ADB-9 adjustable flush-mounted. NOTE: Do not seal over carpet Bump type thresholds not required.
Hardware	Hardware including hinges, threshold & latch-set can be provided and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, ASTM E-413, ASTM E-1408 requirements, Test No. TL13-572

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
34	31	28	26	26	27	30	30	30	32	34	33	32	32	34	36	36	35	37	37



STC 34

Model DPH-6-34 Sound Control Door Pair Assembly

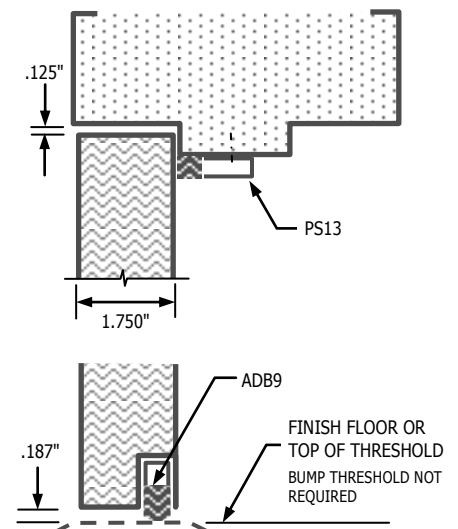
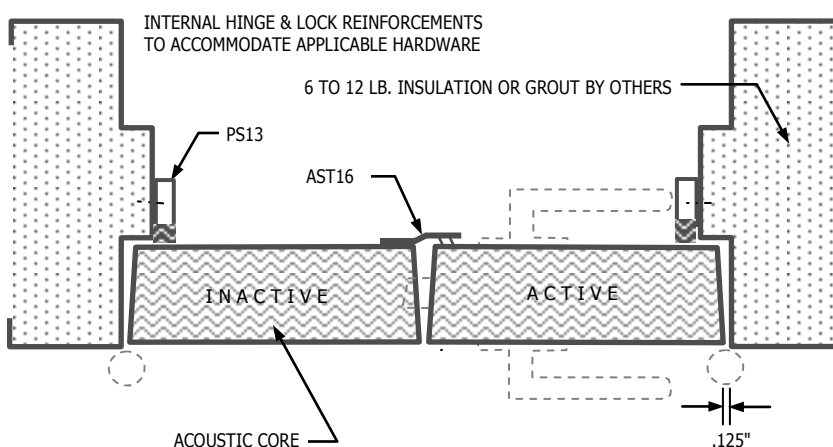
Assembly	Audia™ built-to-order acoustic door pair assemblies come complete with doors, frame, sound seals, door bottom seals; prime painted.
Material	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Core	Proprietary; lead , asbestos & formaldehyde free
Door Weight	11.8 lbs. per sq. ft.
Sound Seals	PS13
Bottom Seal	ADB9 adjustable flush-mounted. NOTE: Do not seal over carpet. Bump type thresholds not required.
Hardware	Hardware not provided. Hinges, threshold, flush bolts and latch-set can be supplied and factory-installed upon request.
Frames	Various designs available. See Frame Profiles & Frame Elevations Frames must be grouted or packed with 6 to 12 lb. insulation (by others)
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, std. Finish paint also available See Finishes or Abraded Finishes
Fire Rating	Per UL10C / UBC7-2 Positive Pressure, Up to 3 HR Rating See Fire Rated
Bullet	Bullet resistant option available See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements, Test No. TL3-581

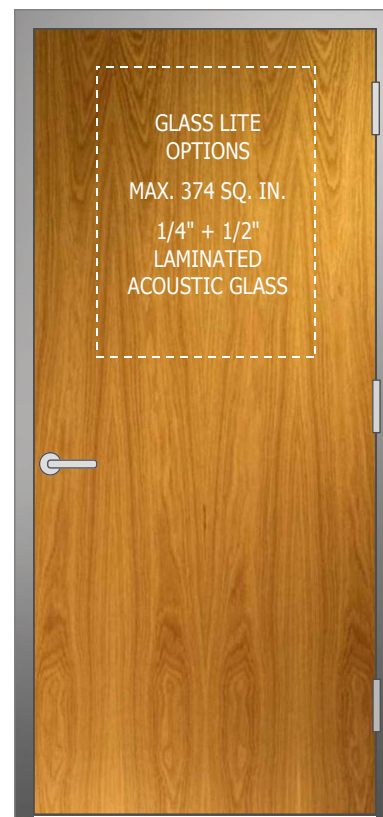
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
34	31	23	26	27	27	30	30	30	31	33	34	33	33	35	36	36	35	37	39



STC 51

Model DSW-51 / Wood Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, cam lift hinges, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel , Stainless Steel or Bronze
Door Faces	WDMA premium A-grade 5-ply wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available Veneer Match: Book match veneer is standard Face Assembly: Running match is standard
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door face
Core	Proprietary; lead , asbestos and formaldehyde free
Door Weight	12.5 lbs. per sq. ft. Weight must be considered in wall design.
Sound Seals	PS1, NO Exposed Fasteners , retainers finished to match frame
Bottom Seal	ADB8 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required .
Hardware	Cam lift hinges provided. All other hardware including thresholds & latch-sets can be provided and factory installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, up to 3/4 HR See Fire Rated
Bullet	See Bullet Resistant

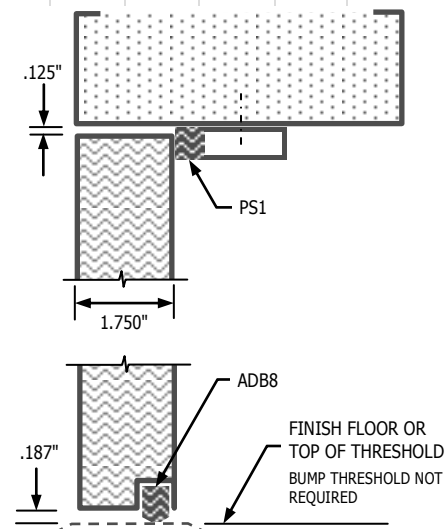
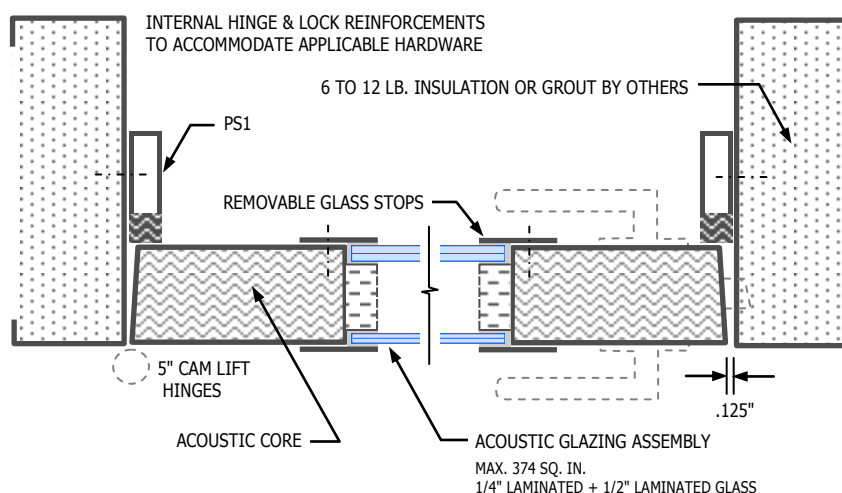


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E 1408 requirements
Test No. TL06-318

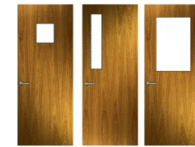
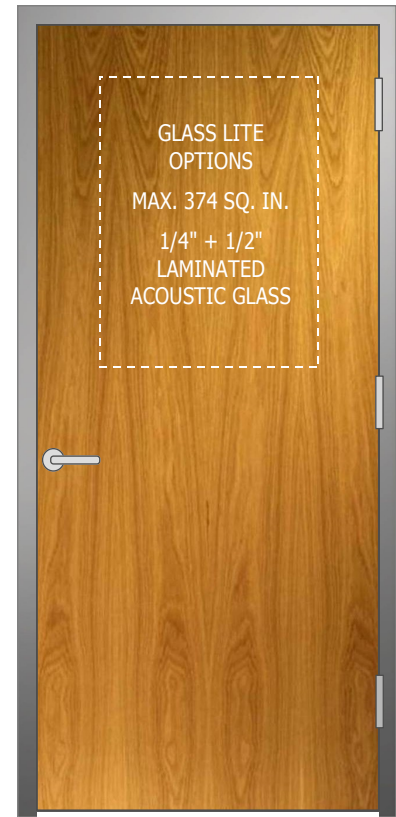
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
51	38	27	32	31	33	42	48	49	50	51	52	54	57	58	57	58	61	64	64



STC 50

Model DSW-50/ Wood Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, cam lift hinges, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel , Stainless Steel or Bronze
Door Faces	WDMA premium A-grade 5-ply wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available Veneer Match: Book match veneer is standard Face Assembly: Running match is standard
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door face
Core	Proprietary; lead , asbestos and formaldehyde free
Door Weight	12.5 lbs. per sq. ft. Weight must be considered in wall design.
Sound Seals	PS1, NO Exposed Fasteners , retainers finished to match frame
Bottom Seal	ADB8 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required .
Hardware	Cam lift hinges provided. All other hardware including thresholds & latch-sets can be provided and factory installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, up to 3/4 HR See Fire Rated
Bullet	See Bullet Resistant

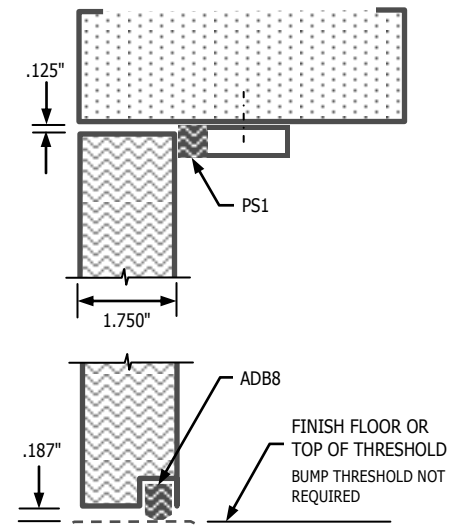
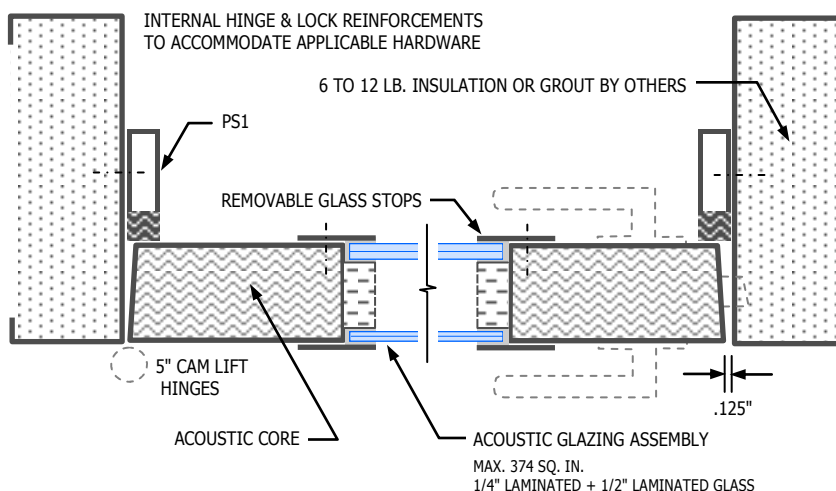


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements
Test No. TL06-320

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
50	38	28	32	31	32	42	48	49	50	51	52	54	56	58	57	58	61	63	64



STC 46

Model DSW-46/ Wood Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel , Stainless Steel or Bronze
Door Faces	WDMA premium A-grade 4-ply wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available. Veneer Match: Book match veneer is standard. Face Assembly: Running match is standard.
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door faces.
Core	Proprietary; lead , asbestos and formaldehyde free
Glazing	1/4" + 1/2" Laminated Glass, Max. 374 sq. in., Fire Rated See Glass 1. Glass and glazing by others, standard 3. Optional factory installed glazing insures optimal performance
Door Weight	12.2 lbs. sq. ft. Weight to be considered in wall design.
Sound Seals	PS1 & PS13, NO Exposed Fasteners , retainers finish to match frame
Bottom Seal	ADB8 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required .
Hardware	All hardware including standard swing hinges, thresholds & latch-sets can be provided and factory installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, up to 3/4 HR See Fire Rated
Bullet	See Bullet Resistant

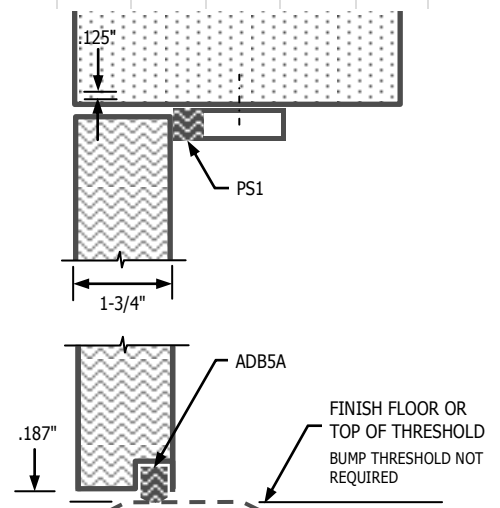
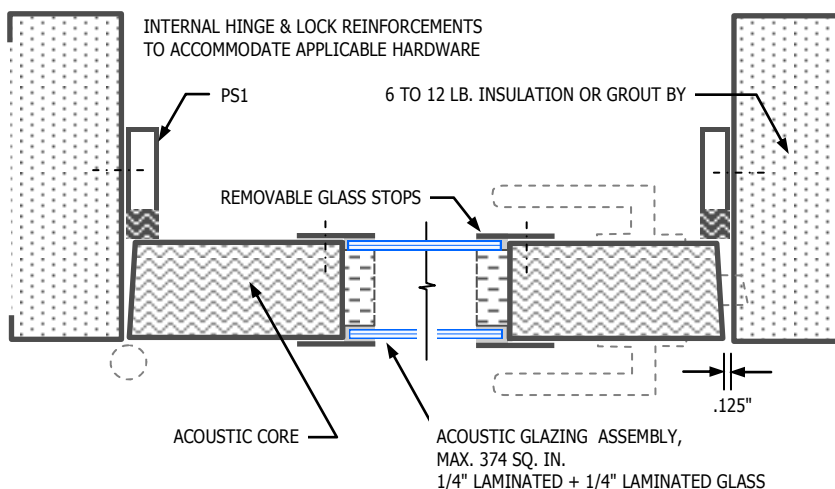


GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements
Test No. TI06-315

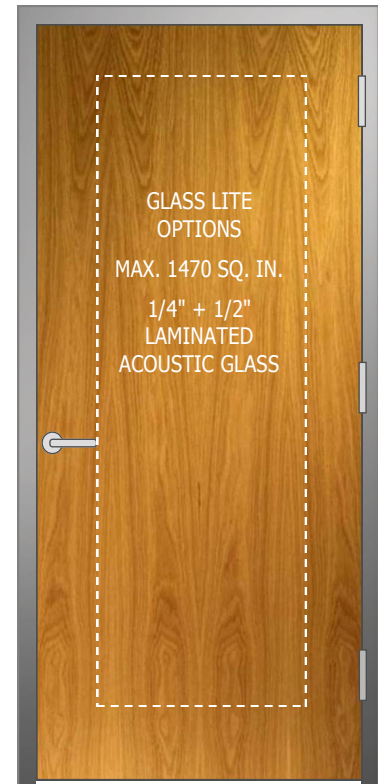
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
46	36	26	31	30	28	42	47	47	48	50	52	54	57	58	57	57	61	64	64



STC 46

Model DSW-46F / Wood Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, cam lift hinges, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel , Stainless Steel or Bronze
Door Faces	WDMA premium A-grade 4-ply wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available. Veneer Match: Book match veneer is standard. Face Assembly: Running match is standard.
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door faces.
Core	Proprietary; lead , asbestos and formaldehyde free
Glazing	1/4" + 1/2" Laminated Glass, Max. 374 sq. in., Fire Rated See Glass 1. Glass and glazing by others, standard 3. Optional factory installed glazing insures optimal performance
Door Weight	12.8 lbs. sq. ft. Weight to be considered in wall design.
Sound Seals	PS1 & PS13, NO Exposed Fasteners , retainers finish to match frame
Bottom Seal	ADB8 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required.
Hardware	Cam lift hinges provided. All other hardware including thresholds & latch-sets can be provided and factory installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, up to 3/4 HR See Fire Rated
Bullet	See Bullet Resistant



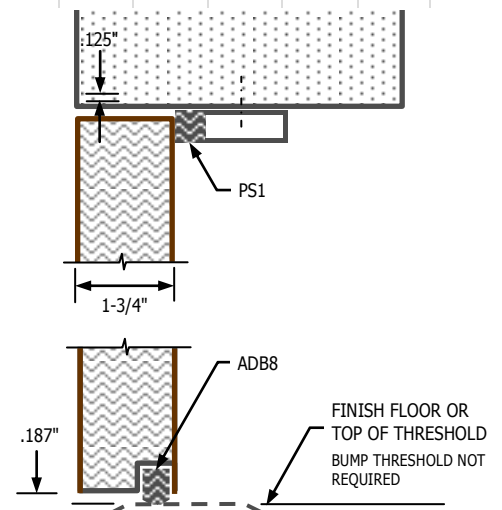
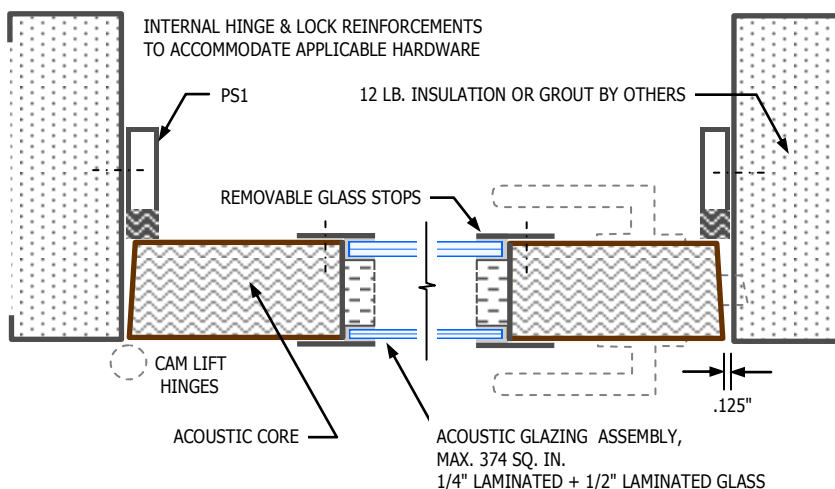
GLASS LITES
See [Elevations](#)
See [Lite Kit Options](#)

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements

Test No. TI06-324

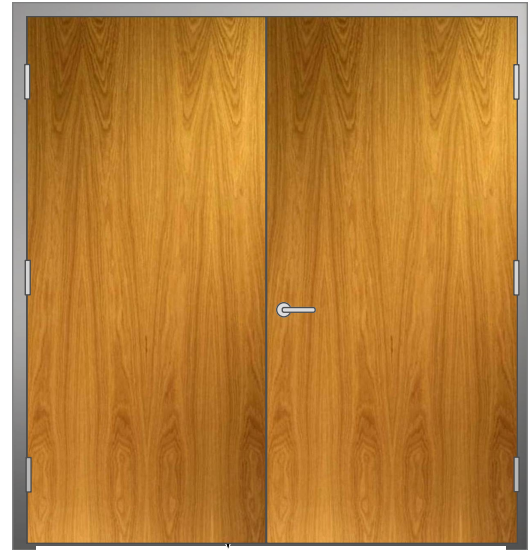
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
46	37	30	29	29	28	34	40	41	48	50	51	53	53	56	56	57	61	63	63



STC 41

Model DSW-41 / Wood Sound Control Door Assembly

Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel , Stainless Steel or Bronze
Door Faces	WDMA premium A-grade 5-ply wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available. Veneer Match: Book match veneer is standard. Face Assembly: Running match is standard.
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door faces.
Core	Proprietary; lead , asbestos and formaldehyde free
Door Weight	11.8 lbs. per sq. ft. Weight must be considered in hinge selection and wall design.
Sound Seals	PS13 or PS10
Bottom Seal	ADB6 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required.
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, up to 3/4 HR See Fire Rated
Bullet	See Bullet Resistant

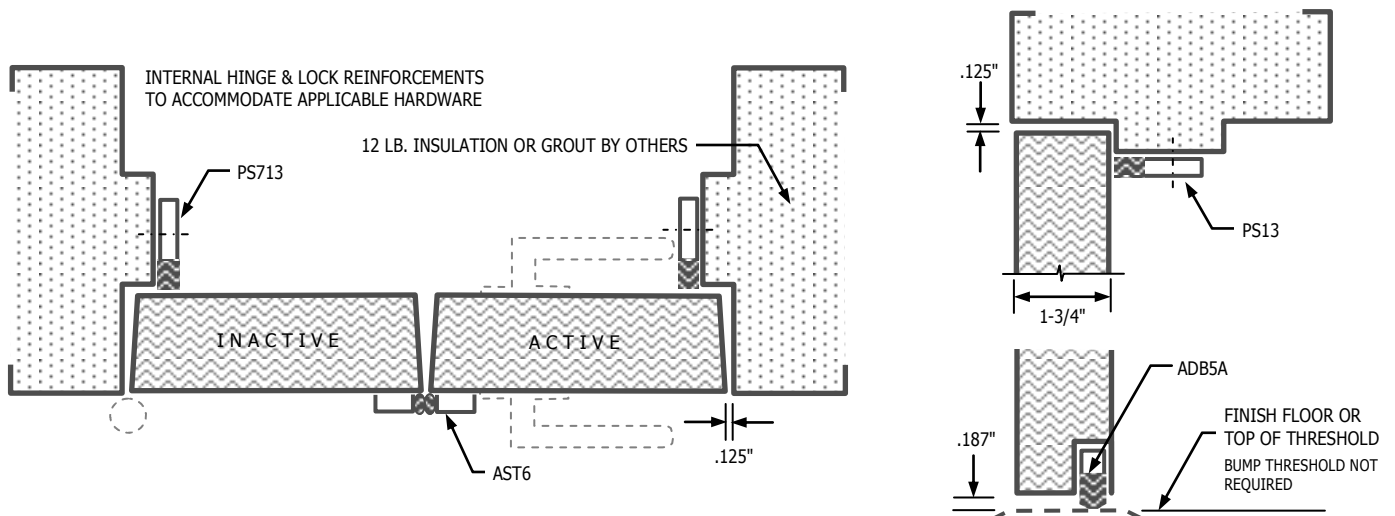


Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements

Test No. TL12-335

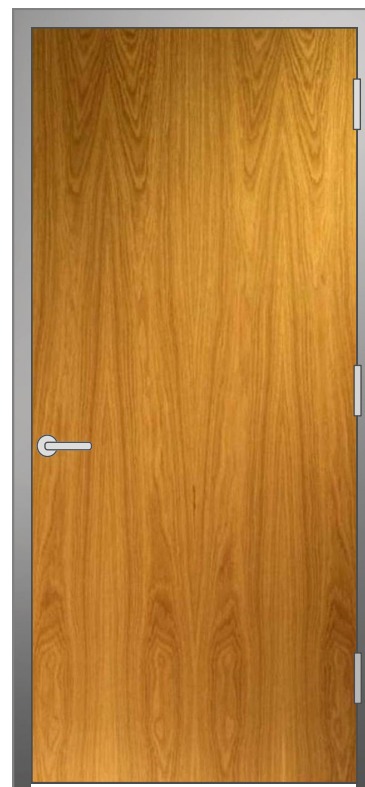
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
41	38	30	35	37	40	48	47	45	45	45	46	45	43	39	38	40	42	41	37



STC 40

Model DSW-40 / Wood Sound Control Door Assembly

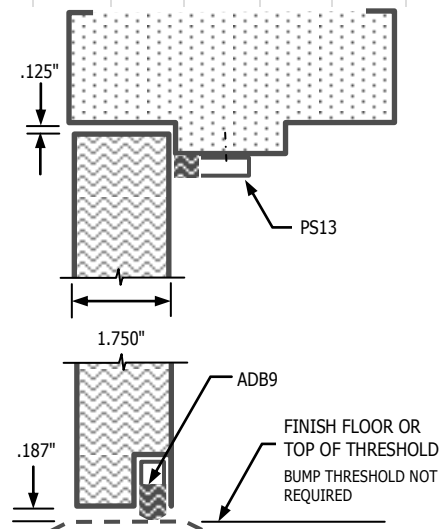
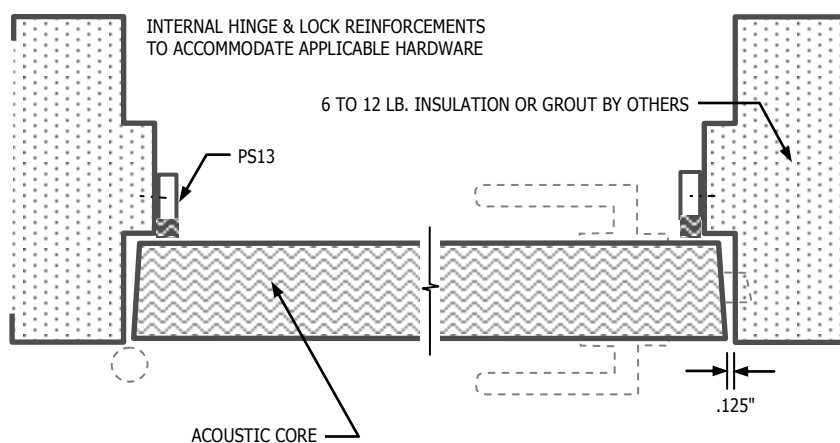
Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel, Stainless Steel or Bronze
Door Faces	WDMA premium A-grade extra HD wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available Veneer Match: Book match veneer is standard. Face Assembly: Running match is standard
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door faces.
Core	Proprietary; lead, asbestos and formaldehyde free
Glazing	1/4" Laminated Glass, Max. 300 sq. in., Fire Rated See Glass 1. Glass and glazing by others, standard 3. Optional factory installed glazing insures optimal performance
Door Weight	9.8 lbs. sq. ft. Consider weight in hinge selection.
Sound Seals	PS7 or PS10
Bottom Seal	ADB9 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required.
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, to 20 Min. Rating See Fire Rated
Bullet	See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements

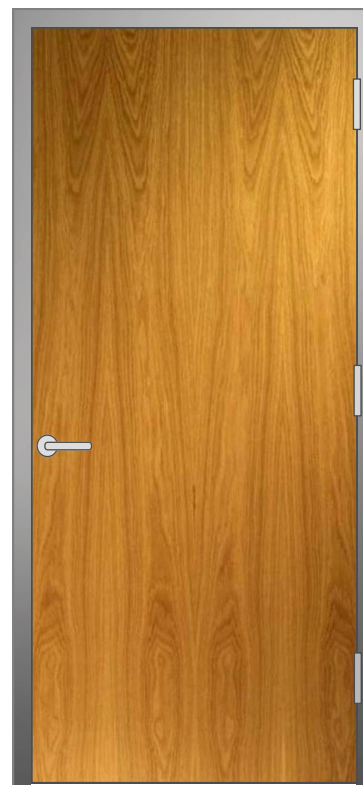
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
44	36	29	28	32	31	30	37	42	46	45	44	42	43	44	46	48	50	50	52



STC 36

Model DTW-36 / Wood Sound Control Door Assembly

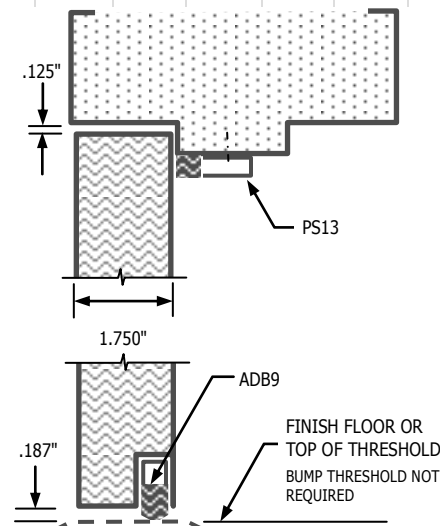
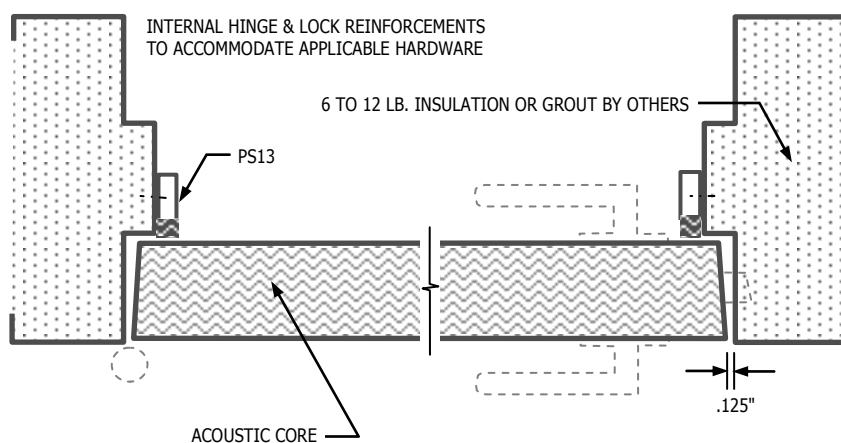
Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel, Stainless Steel or Bronze
Door Faces	WDMA premium A-grade extra HD wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available Veneer Match: Book match veneer is standard. Face Assembly: Running match is standard
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door faces.
Core	Proprietary; lead, asbestos and formaldehyde free
Glazing	1/4" Laminated Glass, Max. 300 sq. in., Fire Rated See Glass 1. Glass and glazing by others, standard 3. Optional factory installed glazing insures optimal performance
Door Weight	9.8 lbs. sq. ft. Consider weight in hinge selection.
Sound Seals	PS7 or PS10
Bottom Seal	ADB9 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required.
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, to 20 Min. Rating See Fire Rated
Bullet	See Bullet Resistant



Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 require TL13-579

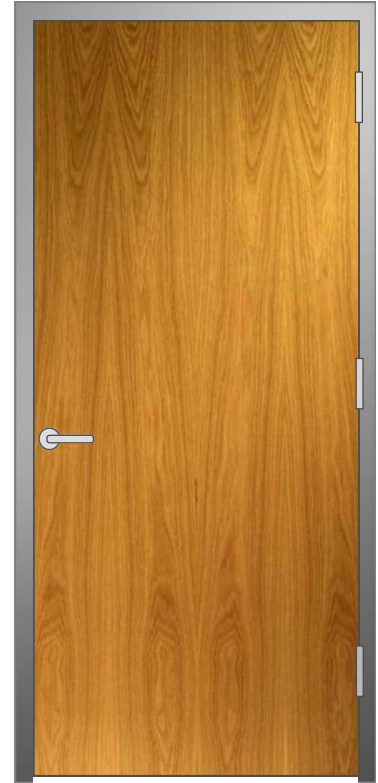
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
36	34	29	30	31	31	31	30	32	33	33	34	36	38	40	40	40	40	40	42



STC 35

Model DHW-35/ Wood Sound Control Door Assembly

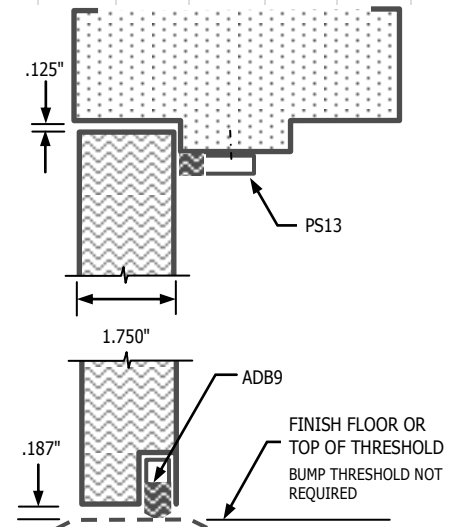
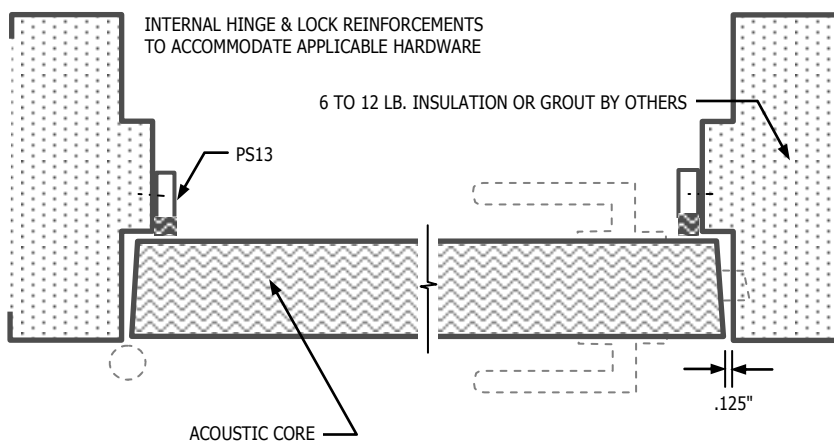
Assembly	Audia™ built-to-order acoustic assemblies come complete with wood door, steel frame, lite kit, sound seals and door bottom seal. Door factory finished for interior locations.
Materials	Door: See Wood Species Frame: Steel , Stainless Steel or Bronze
Door Faces	WDMA premium A-grade extra HD wood veneer, compliant with WDMA I.S. 1-A, FSC Certified available Veneer Match: Book match veneer is standard. Face Assembly: Running match is standard
Door Edges	1-3/4", beveled 1/8" in 2", edge veneer to match door faces.
Core	Proprietary; lead , asbestos and formaldehyde free
Glazing	1/4" Laminated Glass, Max. 300 sq. in., Fire Rated See Glass 1. Glass and glazing by others, standard 3. Optional factory installed glazing insures optimal performance
Door Weight	9.8 lbs. sq. ft. Consider weight in hinge selection.
Sound Seals	PS7 or PS10
Bottom Seal	ADB9 adjustable, flush-mounted bottom seal. NOTE: Do not seal over carpet. Bump type threshold not required.
Hardware	Hardware not provided. Hinges, threshold and latch-set can be supplied and factory-installed upon request.
Frames	Various designs See Frame Profiles and Frame Elevations (Frames to be grouted or packed with 12 lb. insulation, by others)
Finishes	Doors: Factory stained and lacquered, std. See Wood Finishes Frames: Gray, EPA Approved Alkyd primer, standard See Finishes
Fire Rating	Per UL10C / UBC7-2 Pos. Pressure, to 20 Min. Rating See Fire Rated
Bullet	See Bullet Resistant



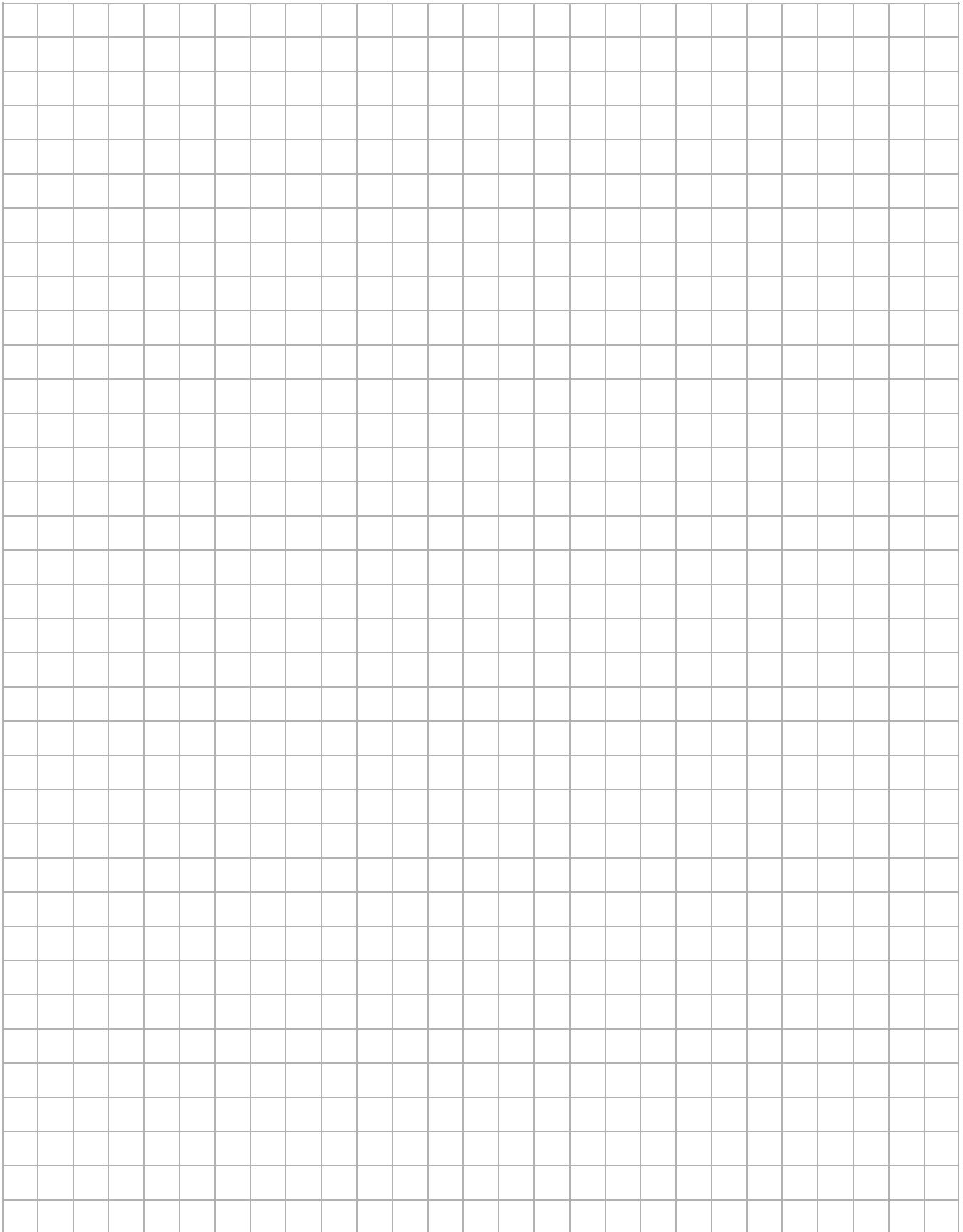
Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

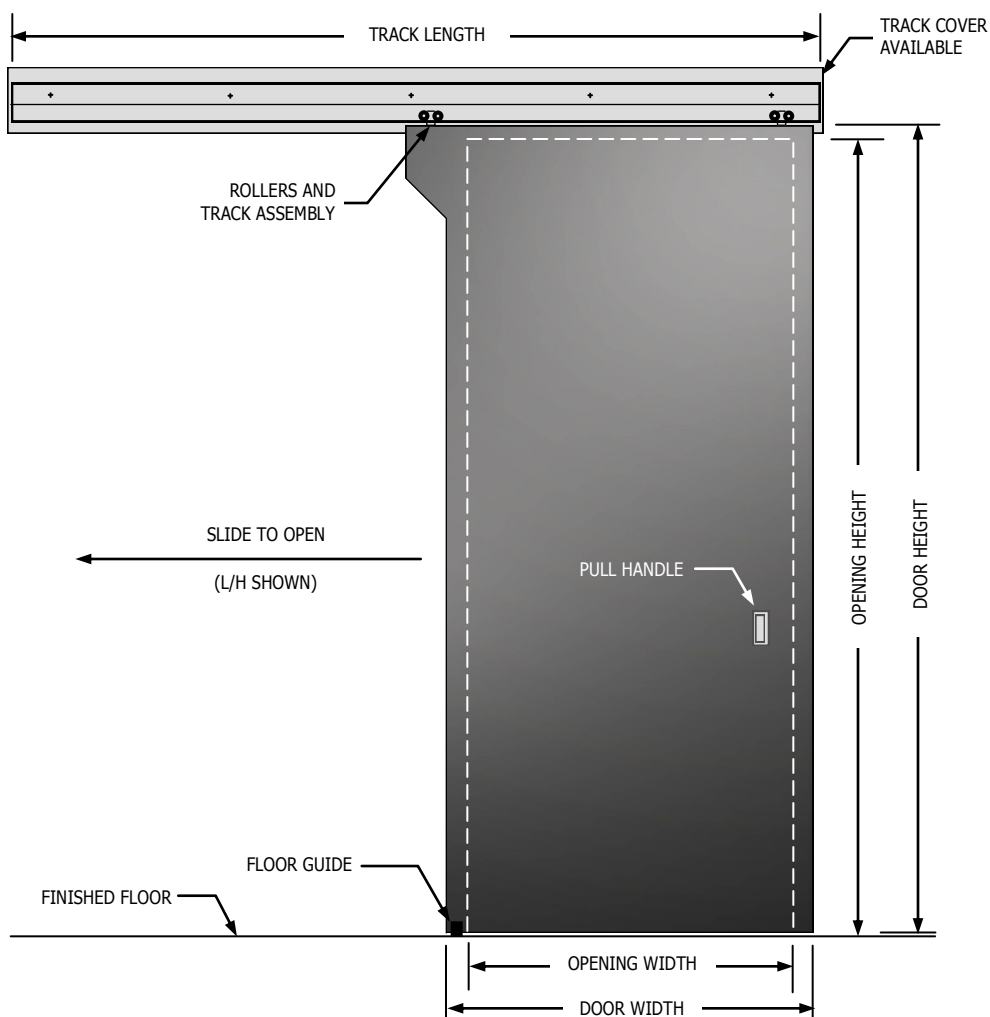
Independently tested in accordance with ASTM E-90, ASTM E-413, ASTM E-1408 requirements Test No. TL13-574

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
35	32	28	27	26	27	30	30	31	32	34	35	36	37	46	36	37	36	39	43



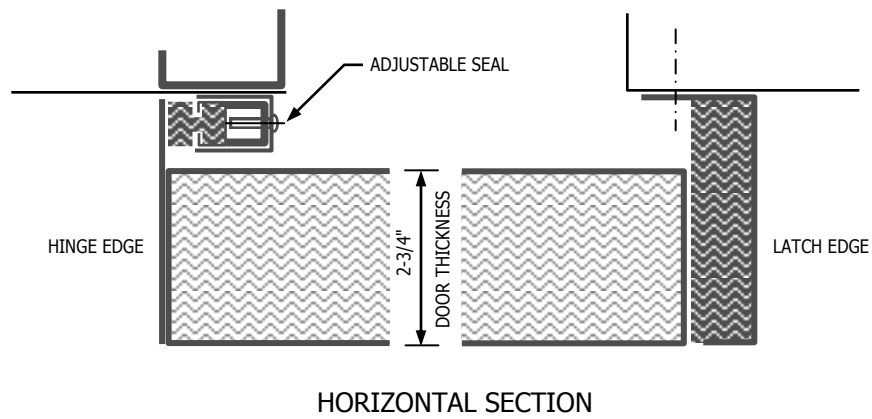
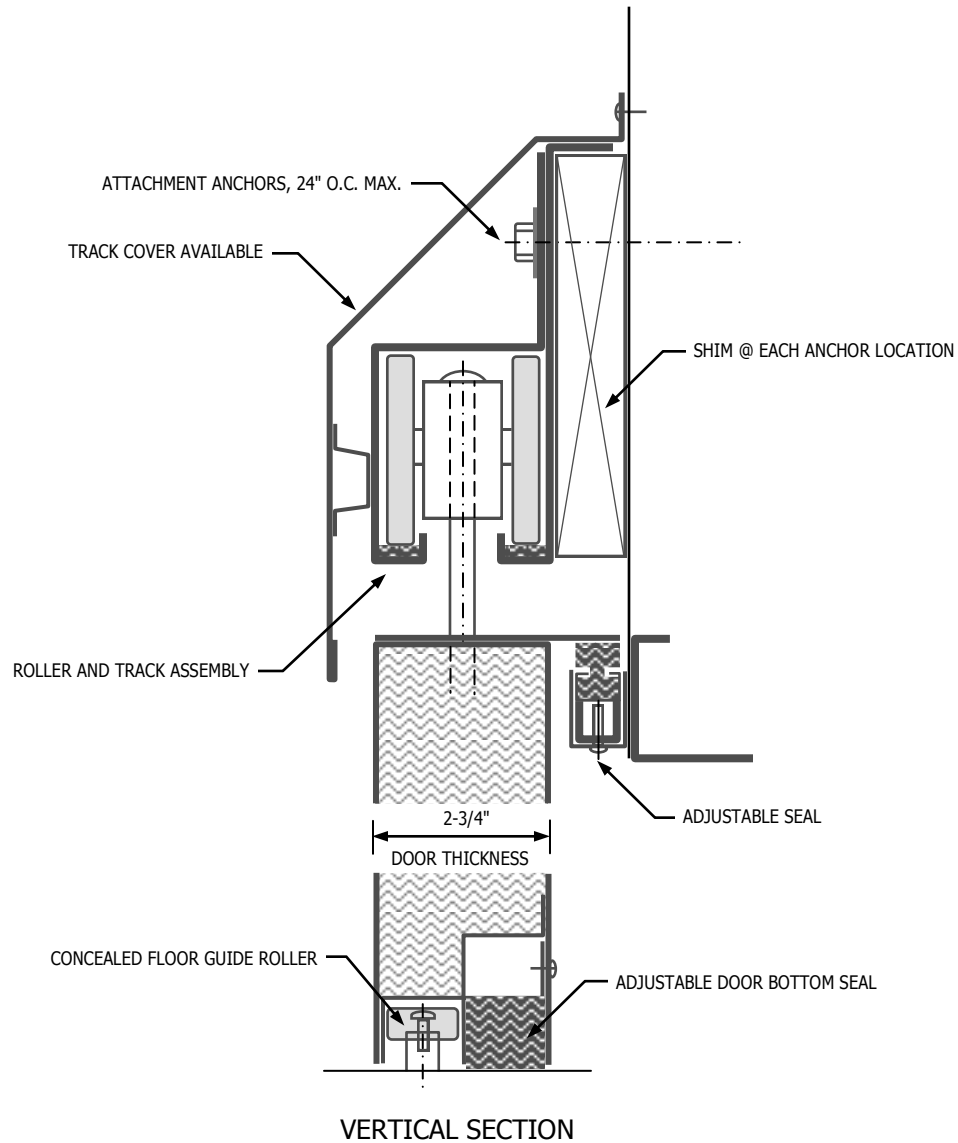
Notes



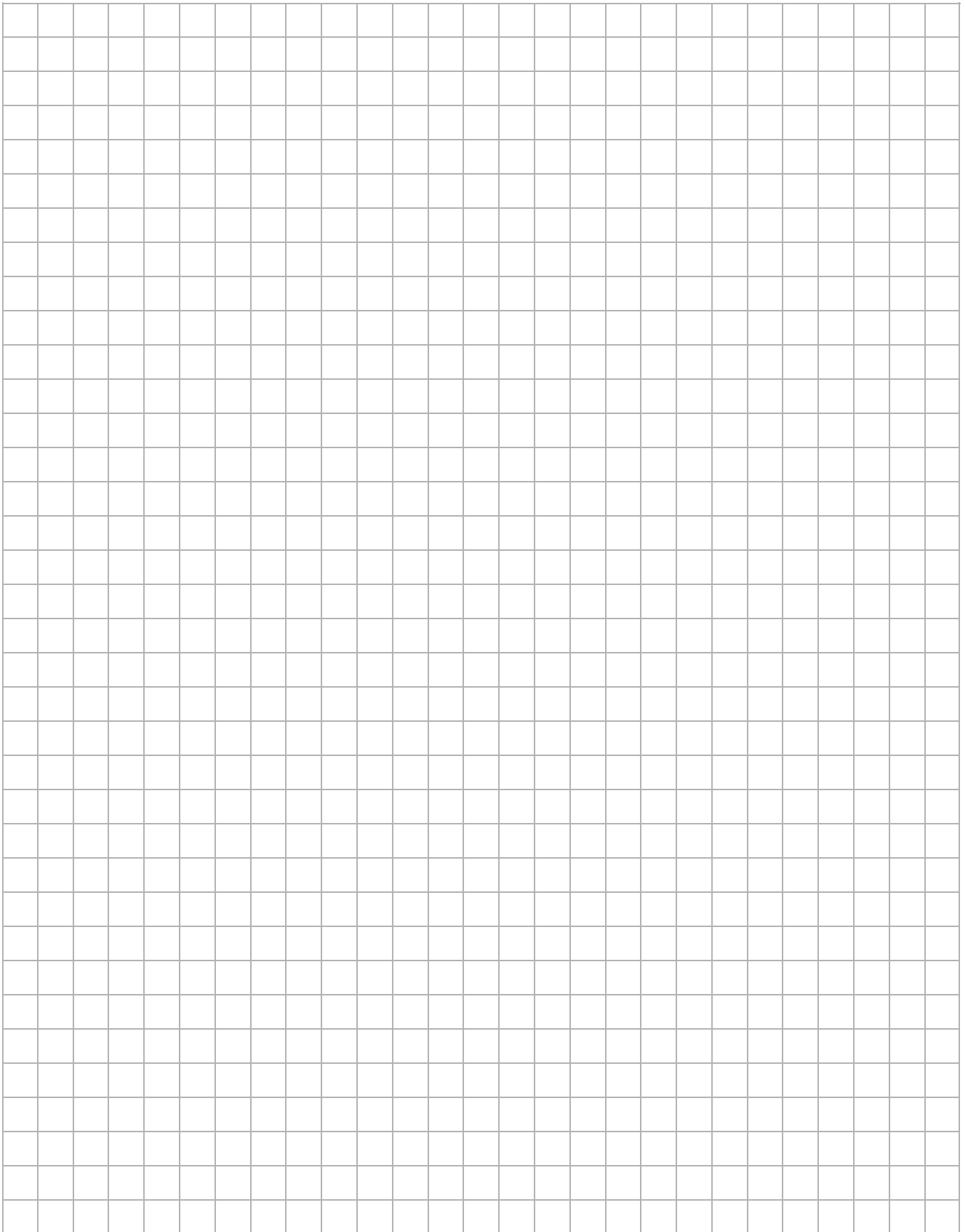


Audia Sliding Sound Control Door Assemblies

Assembly	Audia™ built-to-order sliding acoustic assemblies come complete with door, frame, sound seals, door bottom seals, track, roller bearing trucks, concealed floor guide-roller, and pull handles (flush interior, surface-mounted exterior).
Materials	Options: 1. A60 Galvanized 2. Stainless Steel
Design Construction	Door size and/or STC rating will determine door thickness; horizontal and/or vertical splice may be required. Assemblies may be shipped in modules to be assembled in the field by installer. Single or bi-parting models available. System is designed for track to be wall-mounted.
Door Edges	1-3/4" thick, matching wood stiles and rails, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos and formaldehyde free
Door Weight	Varies depending on door size and STC rating required (i.e. STC 44: 8 lbs. per sq. ft.; STC 50: 11 lbs. per sq. ft., etc.)
Sound Seals	Compression or magnetic type available.
Hardware	Hardware including latch set, threshold, and lever assist unseating device can be provided upon request.
Fire Rating	Not available at this time.
Bullet	Bullet Resistant option is available.



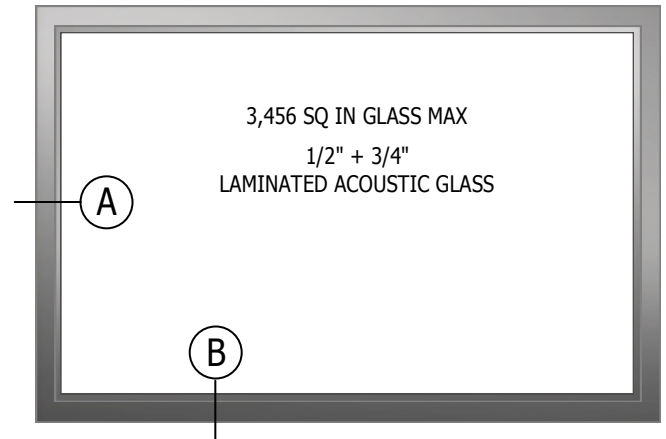
Notes



STC 59

Model W23-59 / Sound Control Window Assembly

Description	Audia™ sound control window assemblies are built-to-order, complete with fully welded frame, wall anchors for any wall type, removable glass stops, proprietary acoustic glazing gaskets, and prime paint
Materials	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Frames	Various designs available; single & multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations Frames must be grouted or packed solid with 6 or 12 lb. insulation. Wall-to-frame voids must be caulked after installation.
Glazing	1. 1/2" + 3/4" Laminated acoustic glass required See Glass 2. Glare reduced with non-glare glass or by sloping glass 5° 3. Glass by others, standard
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Options	1. No exposed fasteners 2. Desiccant-filled spacers 3. Dual nitrogen purge ports
Fire Rating	per ASTM E2010 / UBC7-4 Positive Pressure, up to 1-1/2 HR See Fire Rated
Bullet	Bullet resistant options available See Bullet Resistant

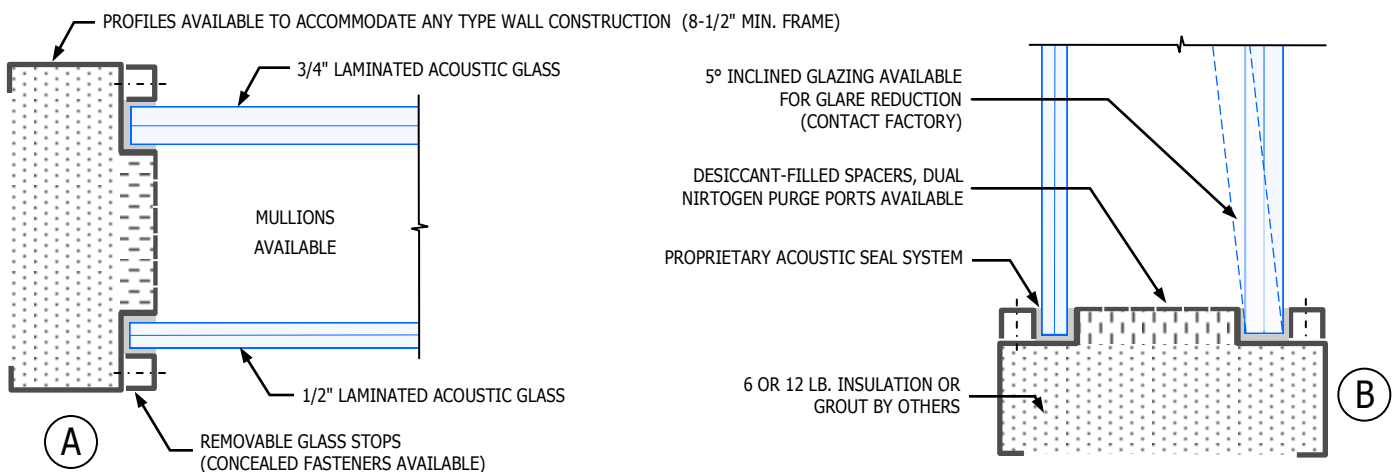


Built to order per customer's requirements
Multiple frame configurations and profile options available

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, Test No. ATI-97906.01-113-11

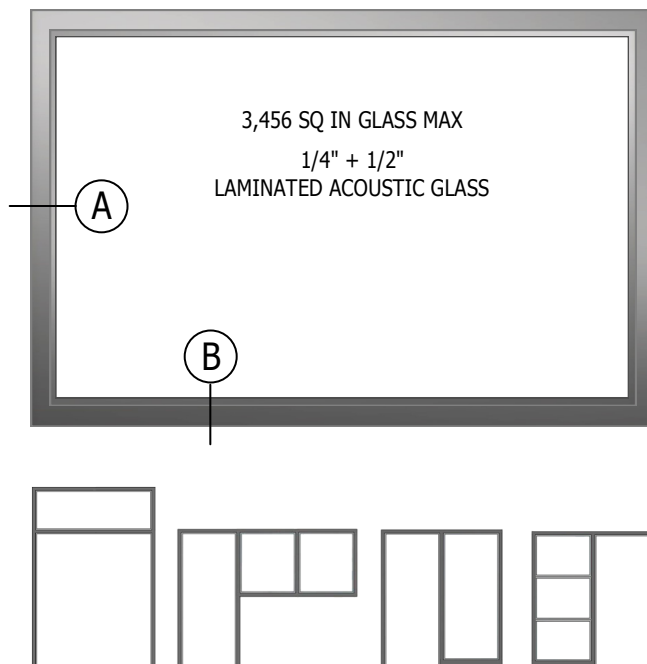
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
59	48	36	39	41	45	47	50	54	57	61	63	66	67	67	66	66	69	72	71



STC 57

Model W42-57 / Sound Control Window Assembly

Description	Audia [™] sound control window assemblies are built-to-order, complete with fully welded frame, wall anchors for any wall type, removable glass stops, proprietary acoustic glazing gaskets, and prime paint
Materials	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Frames	Various designs available; single & multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations Frames must be grouted or packed solid with 6 or 12 lb. insulation. Wall-to-frame voids must be caulked after installation.
Glazing	1. 1/4" + 1/2" Laminated acoustic glass required See Glass 2. Glare reduced with non-glare glass or by sloping glass 5° 3. Glass by others, standard
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Options	1. No exposed fasteners 2. Desiccant-filled spacers 3. Dual nitrogen purge ports
Fire Rating	per ASTM E2010 / UBC7-4 Positive Pressure, Up to 1-1/2 HR See Fire Rated
Bullet	Bullet resistant options available See Bullet Resistant

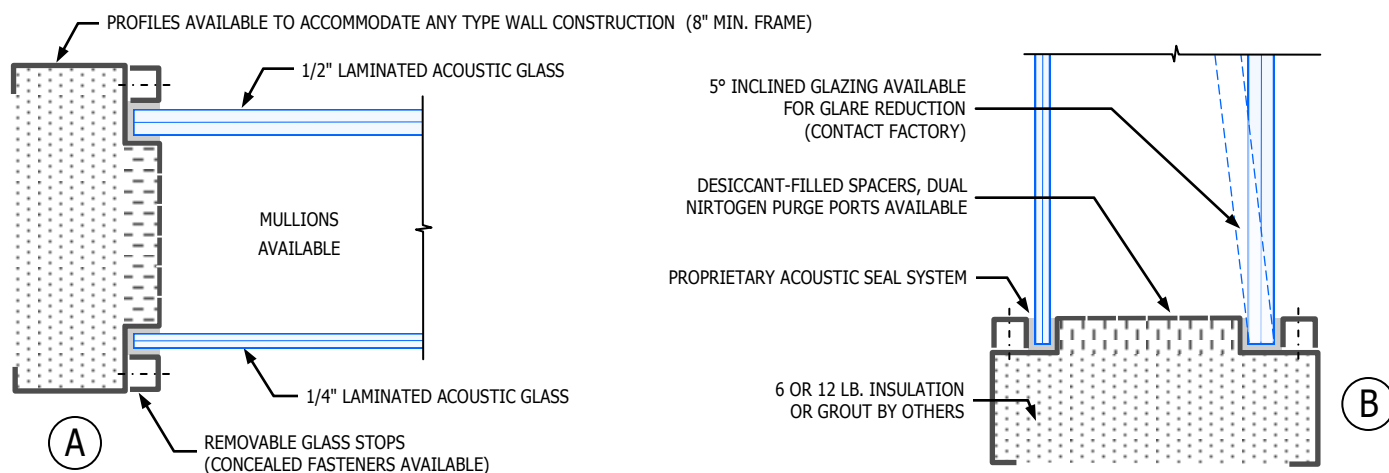


Built to order per customer's requirements
Multiple frame configurations and profile options available

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, Test No. ATI-9706.02-113-11

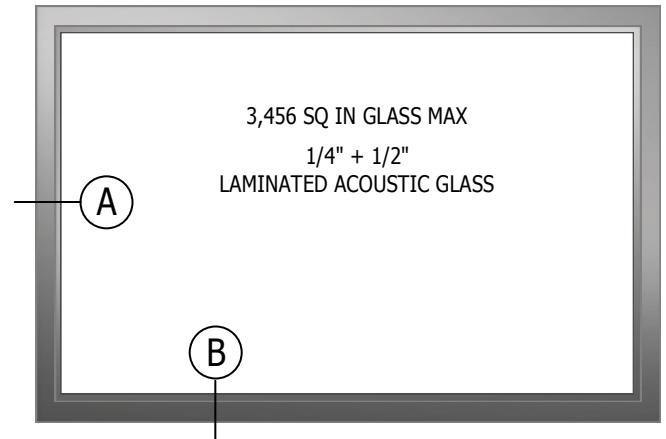
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
57	46	34	37	40	43	46	49	51	55	60	62	65	66	67	65	66	69	71	69



STC 56

Model W42-56 / Sound Control Window Assembly

Description	Audia™ sound control window assemblies are built-to-order, complete with fully welded frame, wall anchors for any wall type, removable glass stops, proprietary acoustic glazing gaskets, and prime paint
Materials	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Frames	Various designs available; single & multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations Frames must be grouted or packed solid with 6 or 12 lb. insulation. Wall-to-frame voids must be caulked after installation.
Glazing	1. 1/4" + 1/2" Laminated acoustic glass required See Glass 2. Glare reduced with non-glare glass or by sloping glass 5° 3. Glass by others, standard
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Options	1. No exposed fasteners 2. Desiccant-filled spacers 3. Dual nitrogen purge ports
Fire Rating	per ASTM E2010 / UBC7-4 Positive Pressure, Up to 1-1/2 HR See Fire Rated
Bullet	Bullet resistant options available See Bullet Resistant

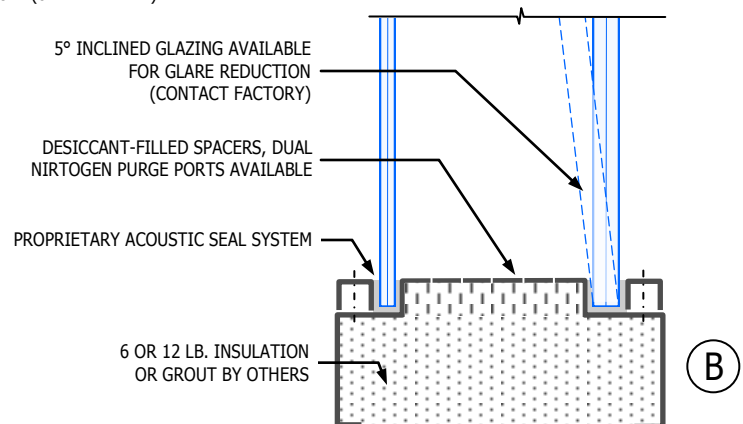
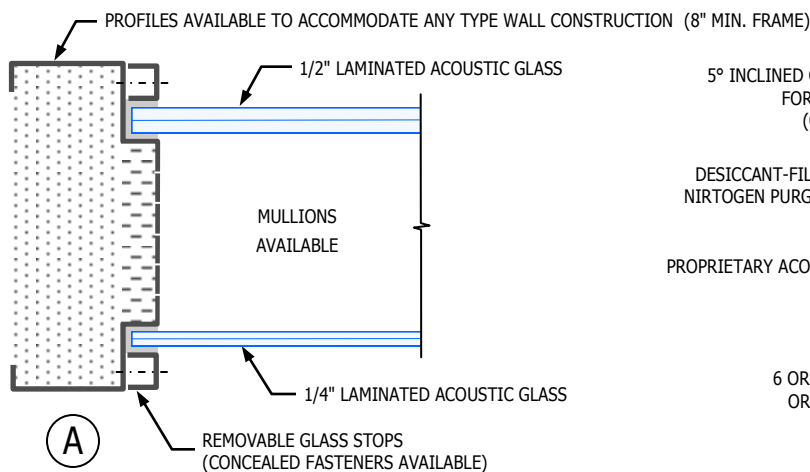


Built to order per customer's requirements
Multiple frame configurations and profile options available

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, Test No. ATI-97906-03-113-11

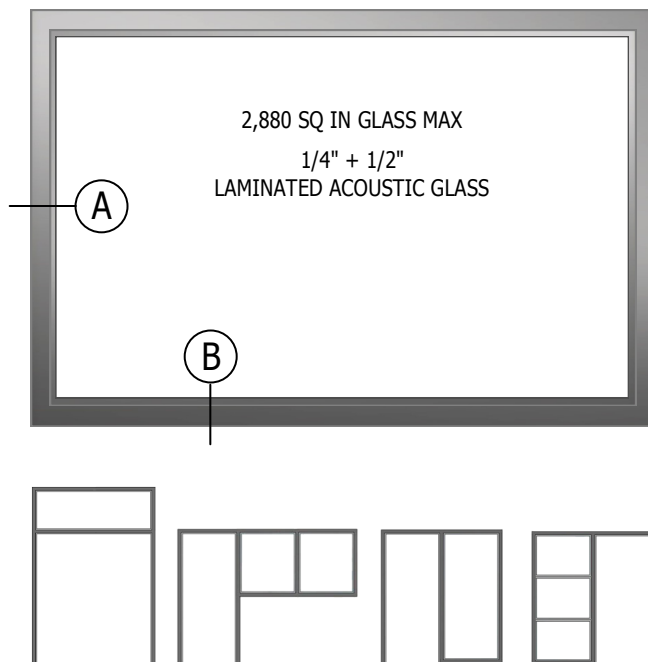
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
56	46	35	37	39	41	45	48	50	51	55	58	60	64	65	64	65	67	70	69



STC 51

Model W42-51 / Sound Control Window Assembly

Description	Audia™ sound control window assemblies are built-to-order, complete with fully welded frame, wall anchors for any wall type, removable glass stops, proprietary acoustic glazing gaskets, and prime paint
Materials	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Frames	Various designs available; single & multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations Frames must be grouted or packed solid with 6 or 12 lb. insulation. Wall-to-frame voids must be caulked after installation.
Glazing	1. 1/4" + 1/2" Laminated acoustic glass required See Glass 2. Glare reduced with non-glare glass or by sloping glass 5° 3. Glass by others, standard
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Options	1. No exposed fasteners 2. Desiccant-filled spacers 3. Dual nitrogen purge ports
Fire Rating	per ASTM E2010 / UBC7-4 Positive Pressure, Up to 1-1/2 HR See Fire Rated
Bullet	Bullet resistant options available See Bullet Resistant

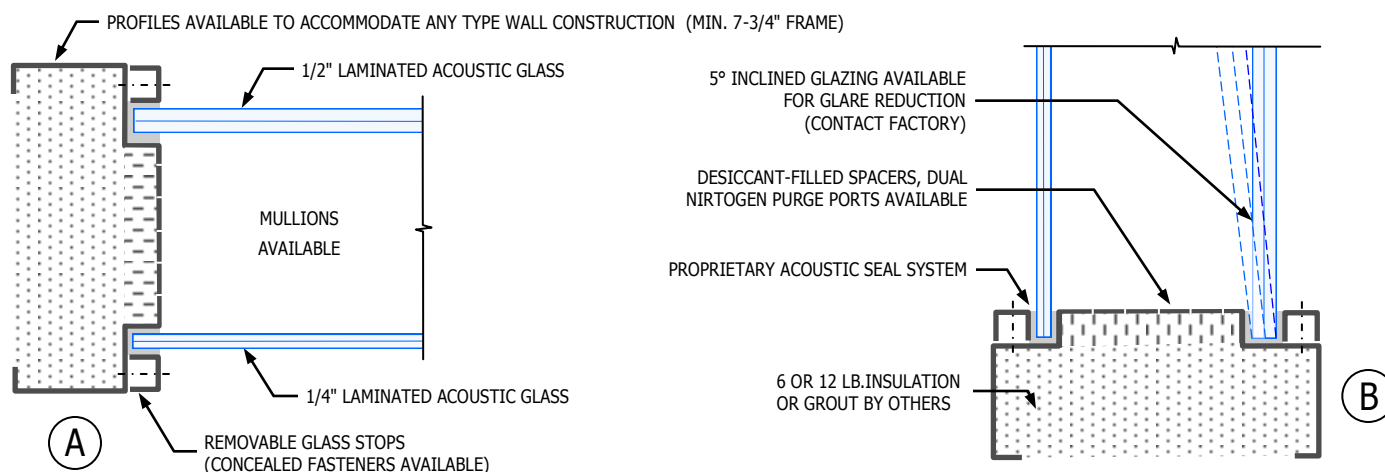


Built to order per customer's requirements
Multiple frame configurations and profile options available

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, Test No. TL06-328

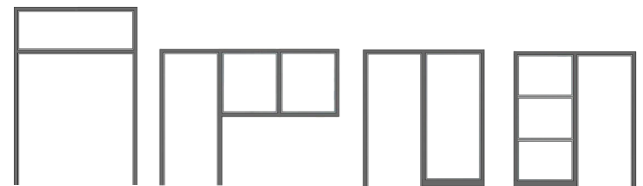
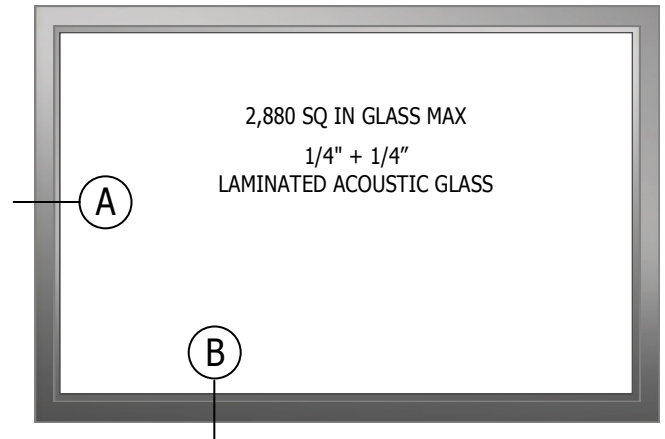
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
51	41	34	41	39	33	40	41	44	47	49	53	55	57	60	61	63	66	66	65



STC 49

Model W44-49 / Sound Control Window Assembly

Description	Audia™ sound control window assemblies are built-to-order, complete with fully welded frame, wall anchors for any wall type, removable glass stops, proprietary acoustic glazing gaskets, and prime paint
Materials	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Frames	Various designs available; single & multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations Frames must be grouted or packed solid with 6 or 12 lb. insulation. Wall-to-frame voids must be caulked after installation.
Glazing	1. 1/4" + 1/4" Laminated acoustic glass required. See Glass 2. Glare reduced with non-glare glass or by sloping glass 5° 3. Glass by others, standard
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available. See Finishes . See Abraded Finishes .
Options	1. No exposed fasteners 2. Desiccant-filled spacers 3. Dual nitrogen purge ports
Fire Rating	per ASTM E2010 / UBC7-4 Positive Pressure, Up to 1-1/2 HR See Fire Rated
Bullet	Bullet resistant options available See Bullet Resistant

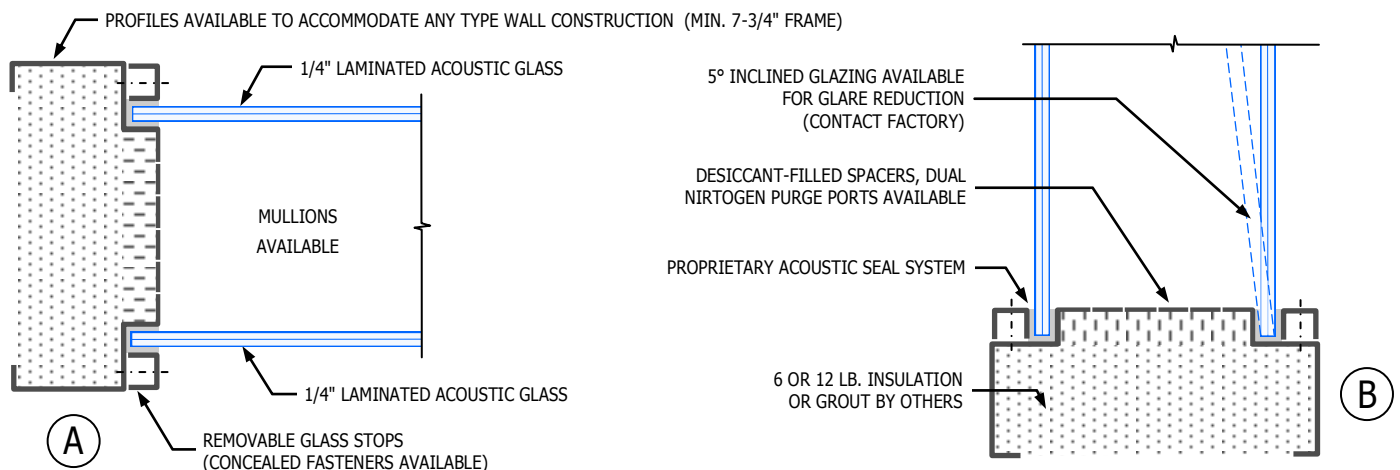


Built to order per customer's requirements
Multiple frame configurations and profile options available

Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, Test No. TL06-326

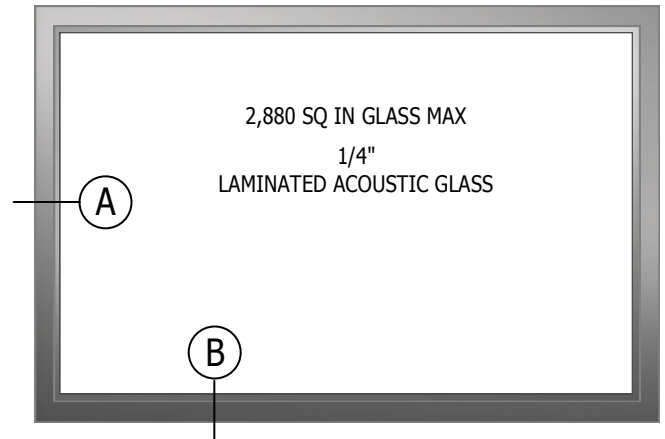
STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
49	39	34	41	35	33	36	38	41	46	49	53	56	58	59	57	57	61	64	64



STC 34

Model W4-34 / Sound Control Window Assembly

Description	Audia™ sound control window assemblies are built-to-order, complete with fully welded frame, wall anchors for any wall type, removable glass stops, proprietary acoustic glazing gaskets, and prime paint
Materials	1. Cold Roll 2. A60 Galvanized 3. Stainless Steel 4. Bronze
Frames	Various designs available; single & multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations Frames must be grouted or packed solid with 6 or 12 lb. insulation. Wall-to-frame voids must be caulked after installation.
Glazing	1. 1/4" Laminated acoustic glass required See Glass 2. Glare reduced with non-glare glass or by sloping glass 5° 3. Glass by others, standard
Finishes	Gray, EPA Approved, Alkyd, zinc compound primer, standard Finish paint also available See Finishes See Abraded Finishes
Options	1. No exposed fasteners 2. Desiccant-filled spacers 3. Dual nitrogen purge ports
Fire Rating	per ASTM E2010 / UBC7-4 Positive Pressure, Up to 1-1/2 HR See Fire Rated
Bullet	Bullet resistant options available See Bullet Resistant

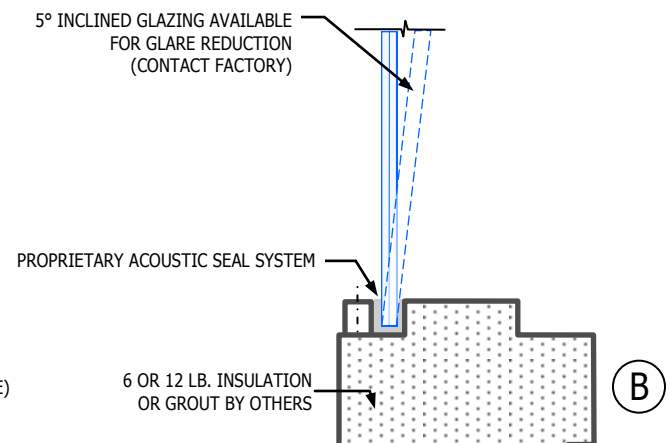
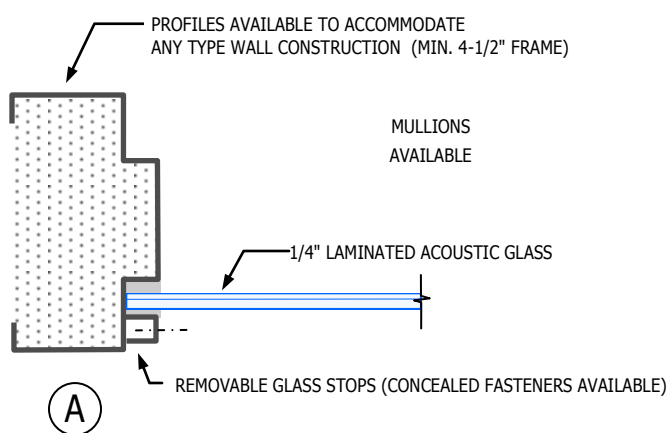


Built to order per customer's requirements
Multiple frame configurations and profile options available

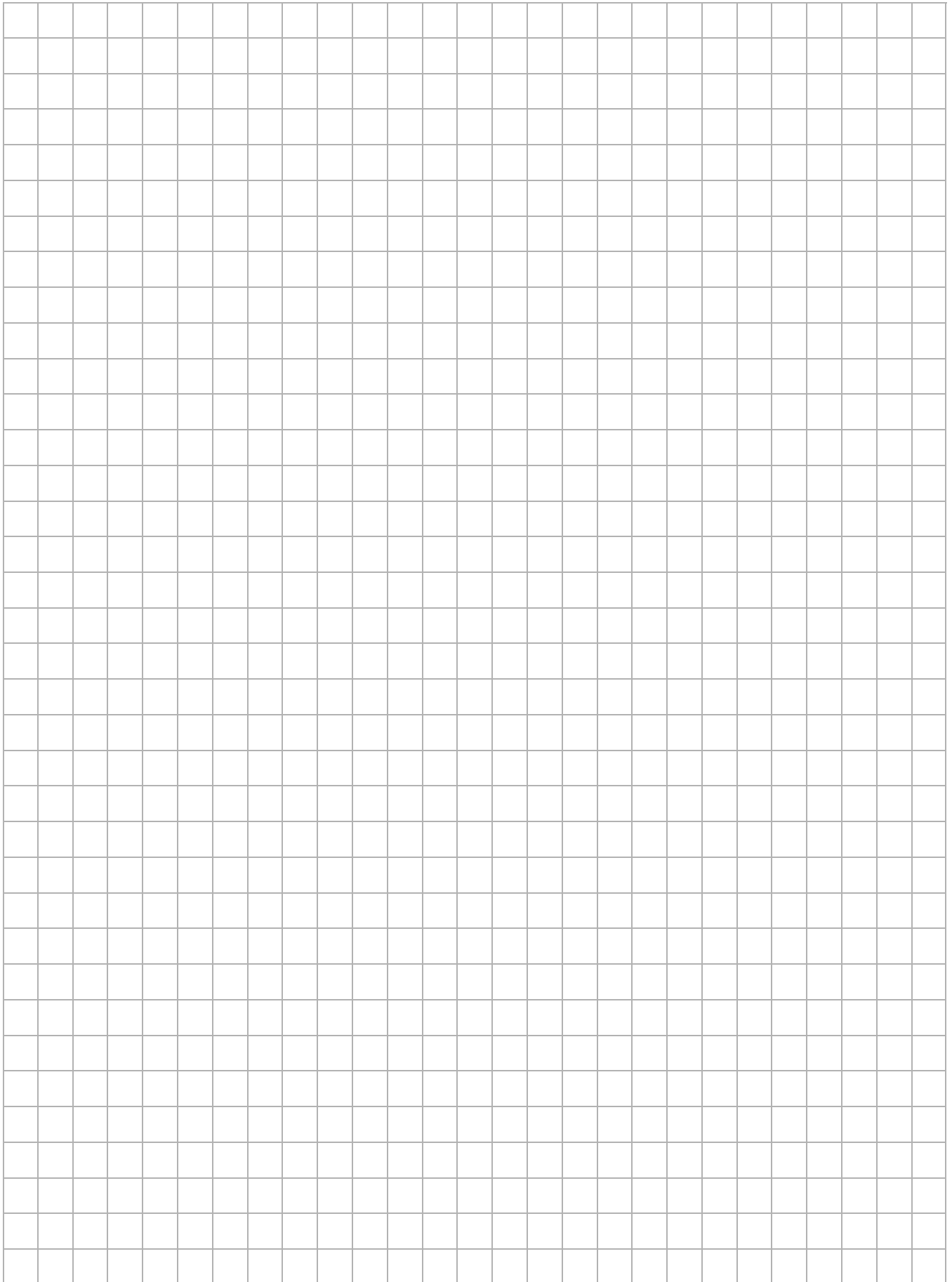
Test Data (Sound Transmission Loss in DB at Frequency / Hertz)

Independently tested in accordance with ASTM E-90 requirements, Test No. TL06-327

STC	OITC	100	125	160	200	250	315	400	500	630	800	1000	1250	1600	2000	2500	3150	4000	5000
34	30	25	26	26	25	27	28	28	30	32	34	36	37	37	36	36	38	43	46

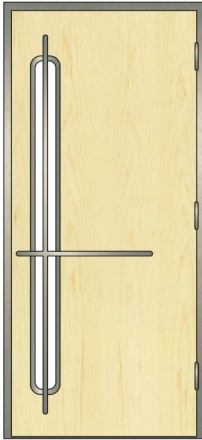


Notes



Sampling of Built-to-Order STC Elevations

Stiles offers superior flexibility in sound control door and window design options. All products are built-to-order to your specifications.



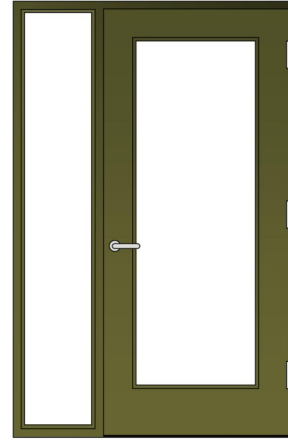
#4 Stainless Steel
Natural Maple



#4 Stainless Steel
Brazilian Rosewood



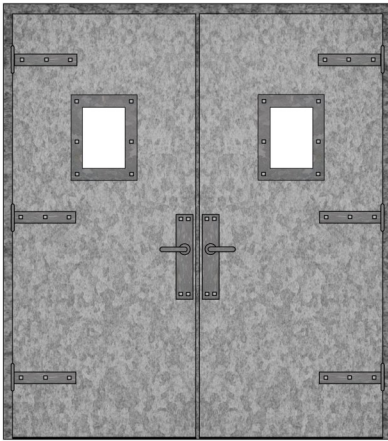
#4 Stainless Steel
Natural Teak, Oiled



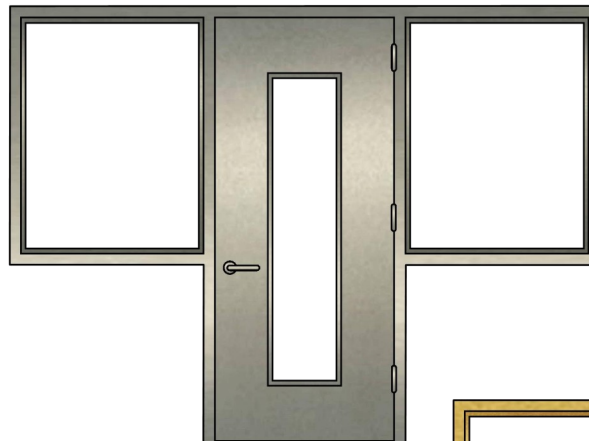
Factory Finished Steel



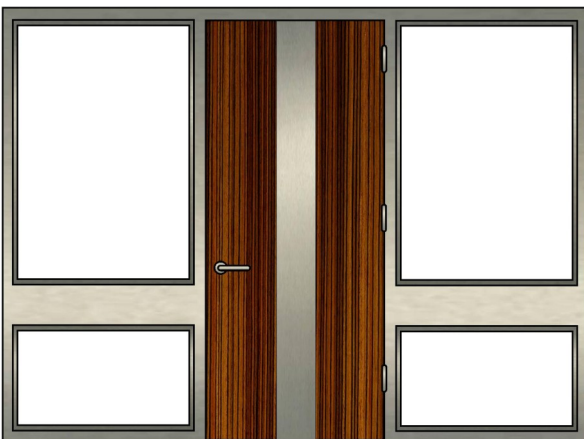
Rusted Steel



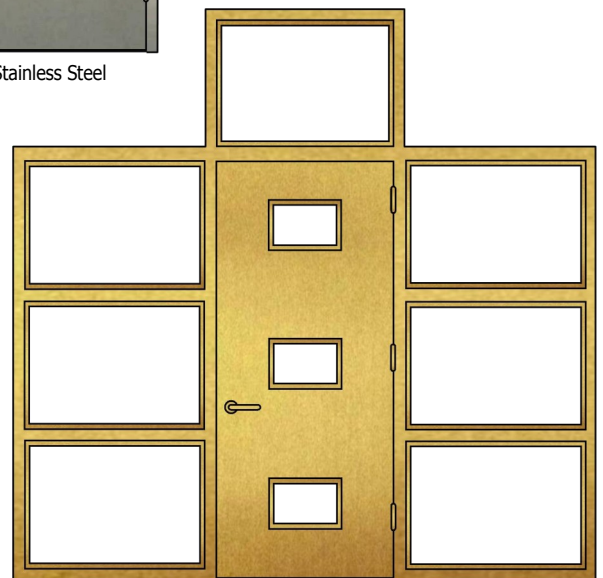
Galvanized Steel, Distressed



#4 Stainless Steel

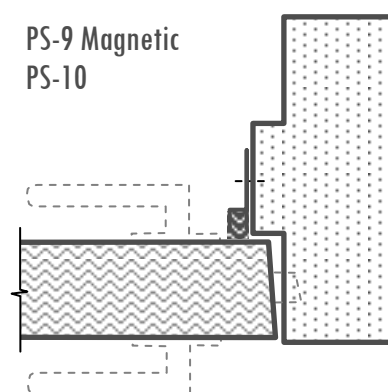
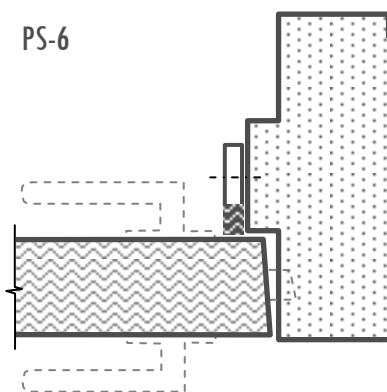
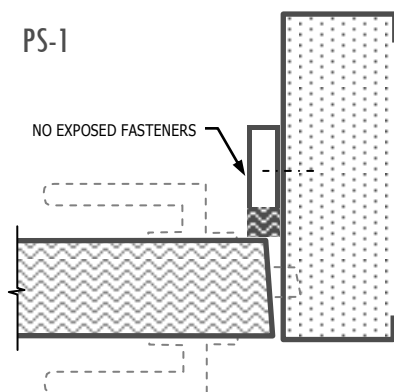


#4 Stainless Steel
Zebrawood

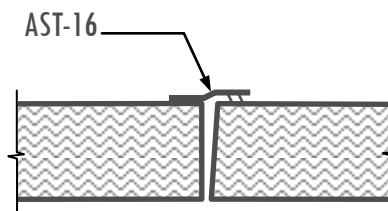
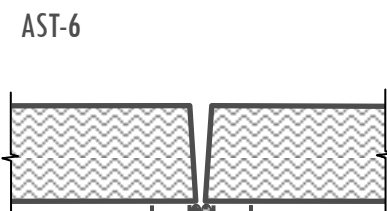
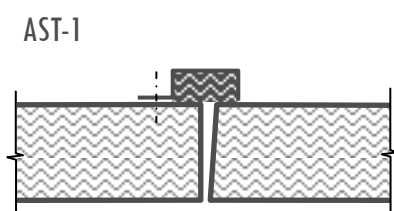


#4 Bronze (Natural)

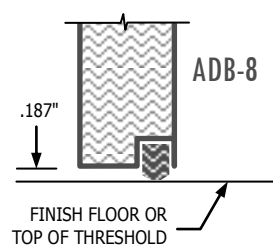
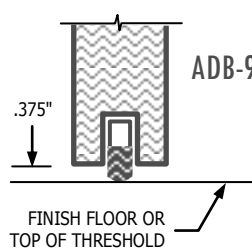
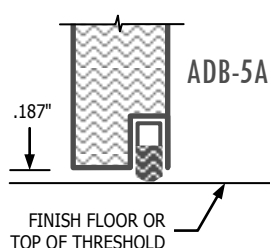
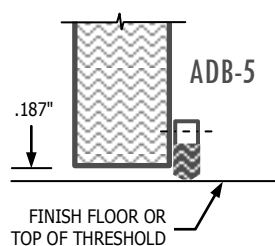
Perimeter Sound Seals



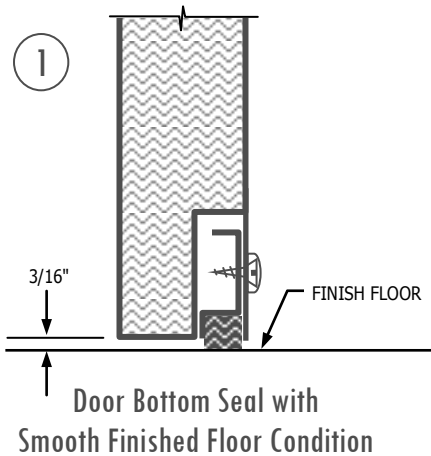
Astragal Sound Seals



Door Bottom Sound Seals

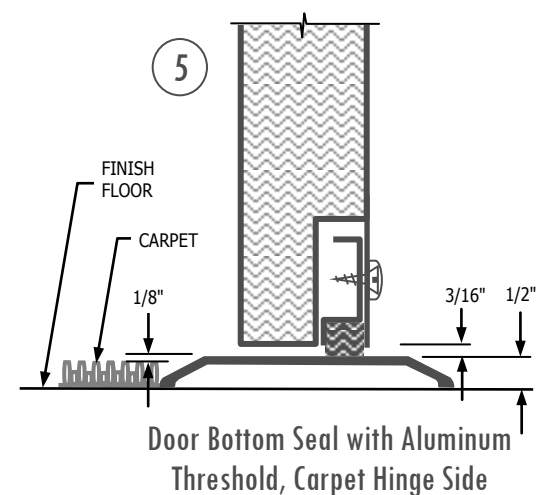
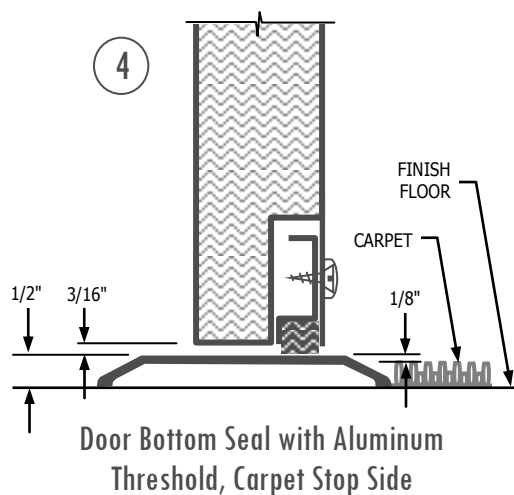
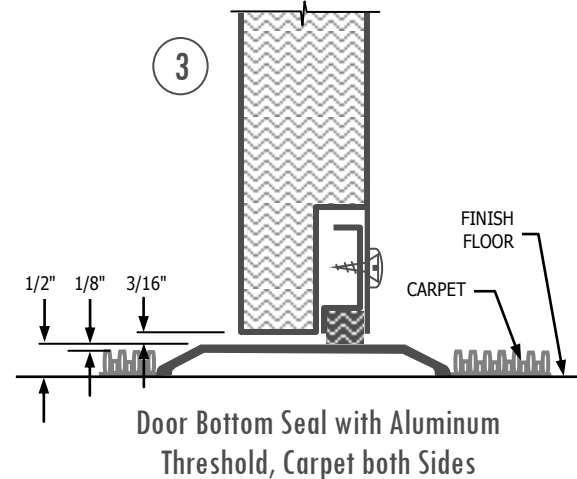
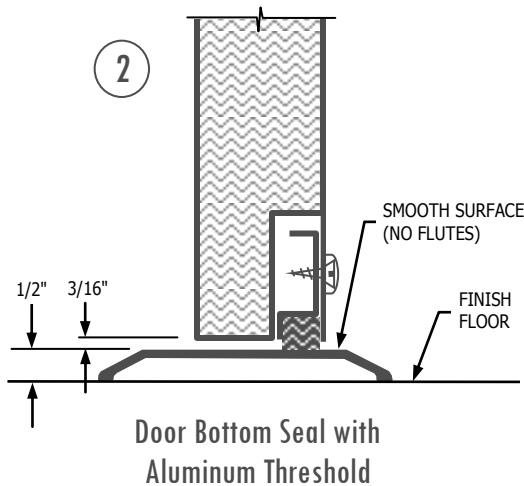


Sound Control Threshold Conditions



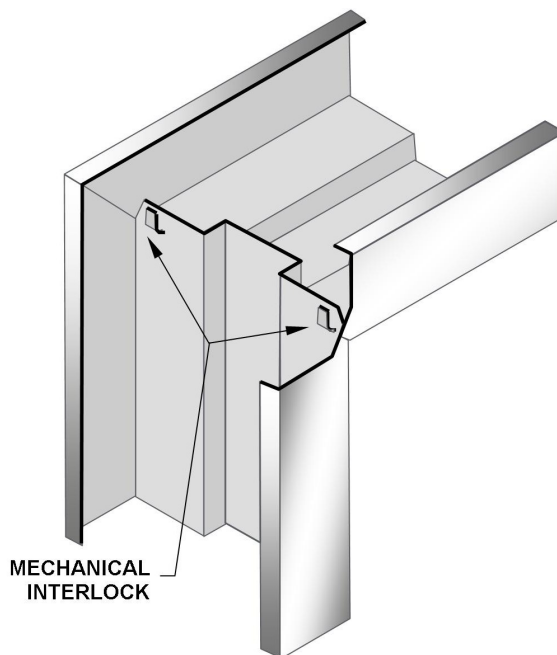
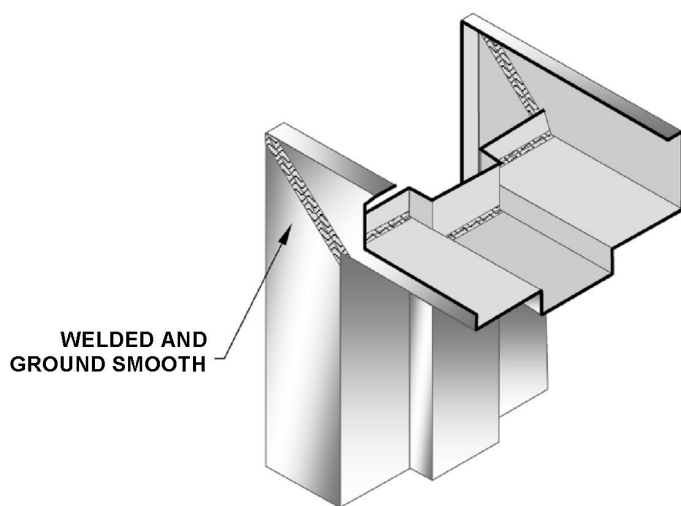
Notes:

1. The floor area under the door must be flat, level and smooth to insure a proper seal.
2. Stiles recommends 3/16" clearance from bottom of door to top of finish floor or threshold, whichever is higher.
3. If a raised threshold is used, it must have a smooth surface and be set in a good grade of sound sealant.
4. If carpet is used, a raised threshold must be installed. The threshold must be installed against the finish floor and run the carpet up to the threshold. Threshold height must be at least 1/8" higher than the carpet.
5. Thresholds are not provided by Stiles.



Standard Construction

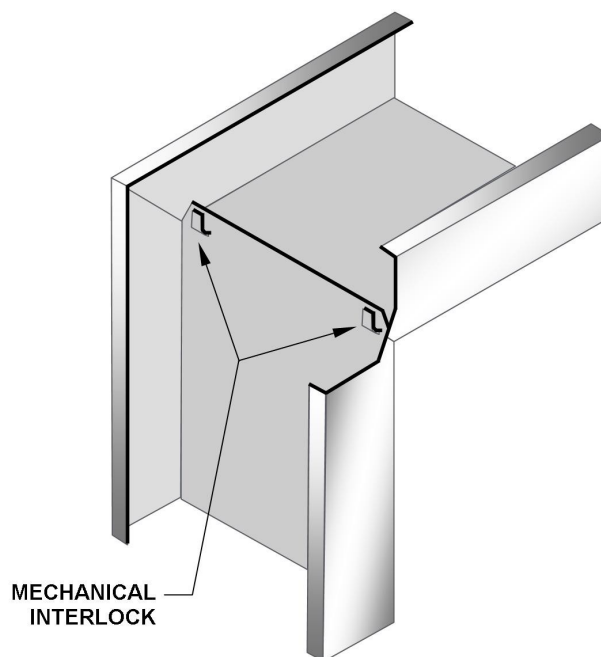
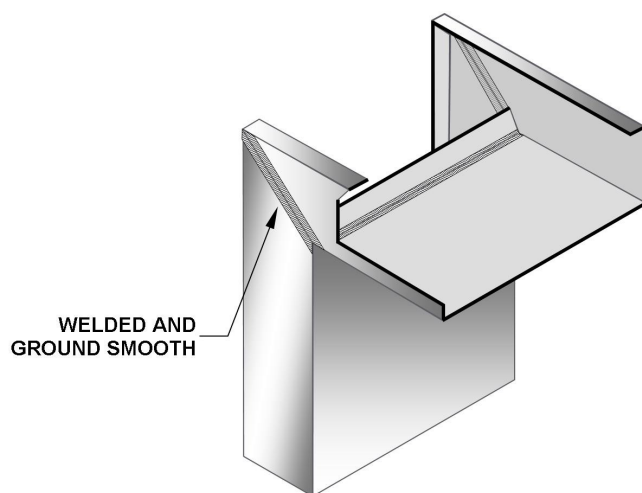
Material	16 GA Cold Rolled Steel
Primer	EPA Approved Modified Alkyd, Gray See Finish Options, General Section
Construction	Machine Mitered & Continuous Welded
Hinge Reinforcement	7 GA X 1-1/4" X 10"
Strike Reinforcement	12 GA or Equivalent # Threads
Closer Reinforcement	12 GA
All Other Reinforcements	12 GA
Anchors	16 GA 18" OC @ Jambs & Heads
Floor Clip	16 GA - 1 / Jamb See Anchors, Frame Section
Fire Label Rating	See Fire Rated Section



Full Welded Frame

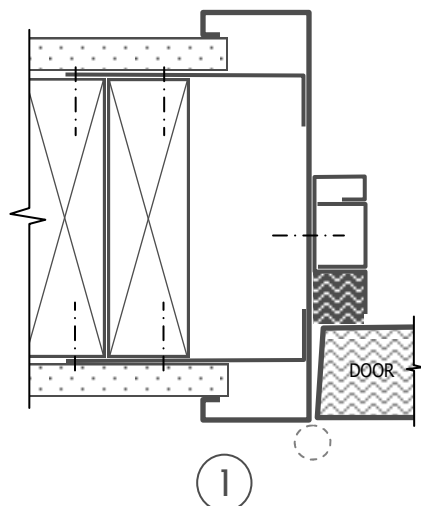
Standard Construction

Material	14 GA Cold Rolled Steel
Primer	EPA Approved Modified Alkyd, Gray See Finish Options, General Section
Construction	Machine Mitered & Continuous Welded
Hinge Reinforcement	7 GA X 1-1/4" X 10" With 16 GA Angle Reinforcement
Strike Reinforcement	12 GA or Equivalent # Threads
Closer Reinforcement	12 GA
All Other Reinforcements	12 GA
Anchors	16 GA 18" OC @ Jamb & Heads
Floor Clip	16 GA - 1 / Jamb See Anchors, Frame Section
Fire Label Rating	See Fire Rated Section

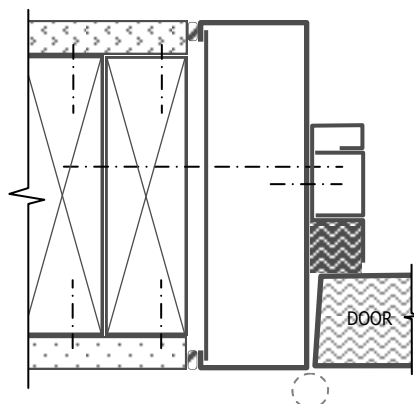


Continuous Welded Frame

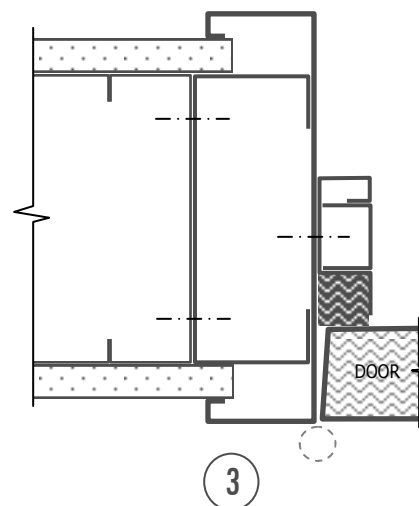
Wall Conditions & Anchor Systems



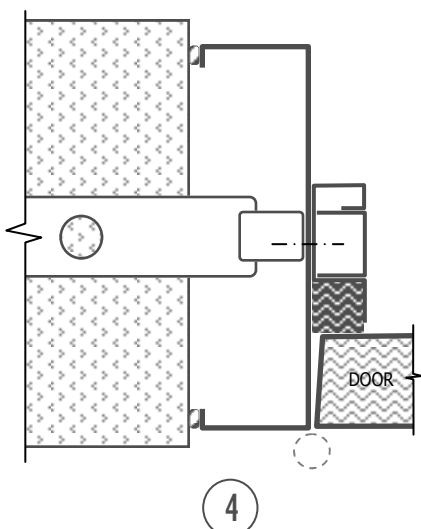
1
Nail-in Installation
in Wood Stud Wall



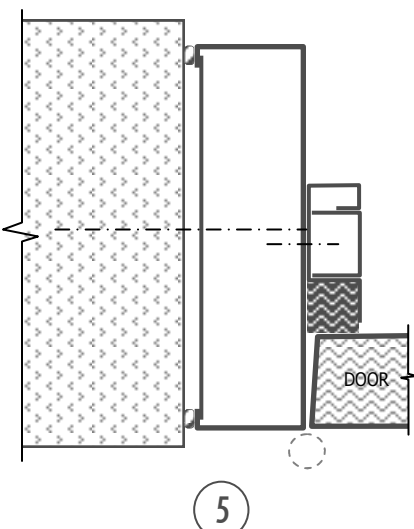
2
Bolt-in Installation
in Existing Wood Stud Wall



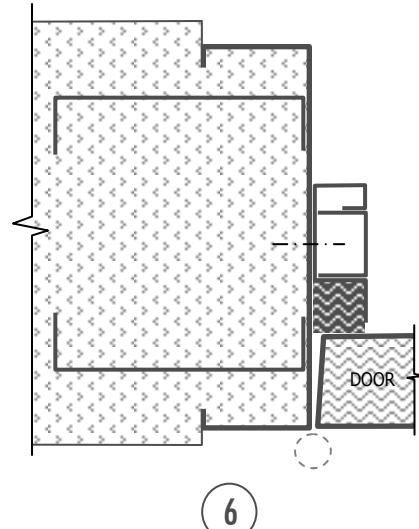
3
Built-in Installation
in Steel Framed Wall



4
Built-in Installation
in New Masonry Wall



5
Bolt-in Installation in Existing
Masonry or Concrete Wall



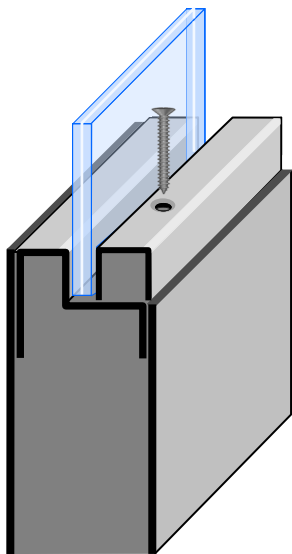
6
Pour-in-Place Installation
in New Concrete Wall

Notes:

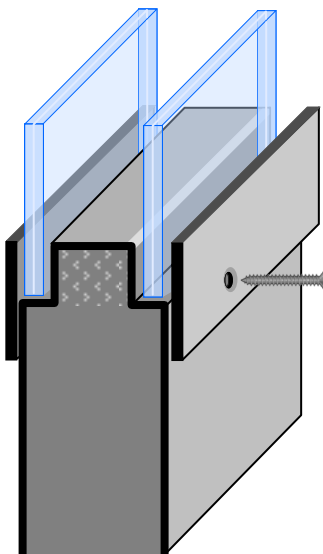
1. Jambes and heads of sound control frames must be fully grouted or packed with 6 to 12 pound mineral wool insulation.
Work to be done in the field by installer.
2. All voids between the frame and wall must be continuously caulked both sides.
3. Custom frame profiles and anchors are available.

Stiles also offers moulding configurations not shown below. Contact factory for more information.

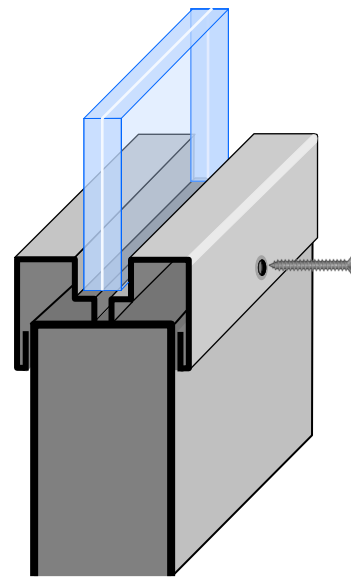
NOTE: Removable glass stops are typically installed to the interior of the building.



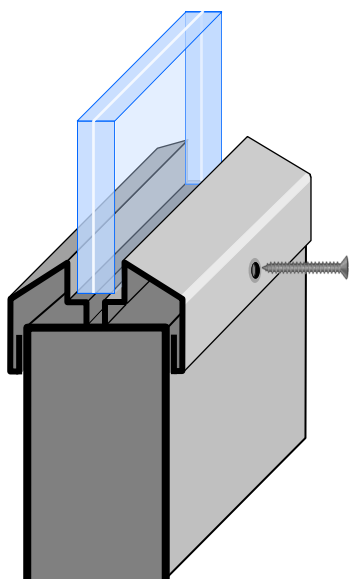
ALK-1 (STD)
1-3/4" Metal Door
Up to 5/8" Single Glass Configurations



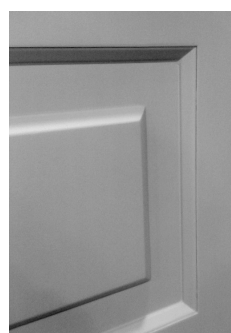
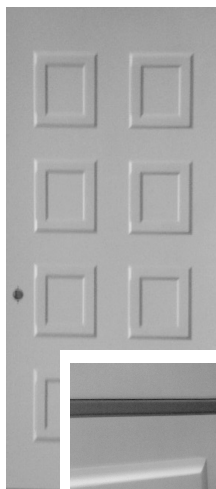
ALK-2 (STD)
1-3/4" Metal Door
All Dual Glass Configurations



ALK-3
1-3/4" Metal Door
All Single Glass Configurations



ALK-4
1-3/4" Metal Door
All Single Glass Configurations



Other Options

We specialize in challenging design requirements and offer unsurpassed flexibility in sound control profiles, configurations, materials, sizes and finishes.

In addition to flush and vision lite, we offer solid panel doors in a variety of elevations and ratings.

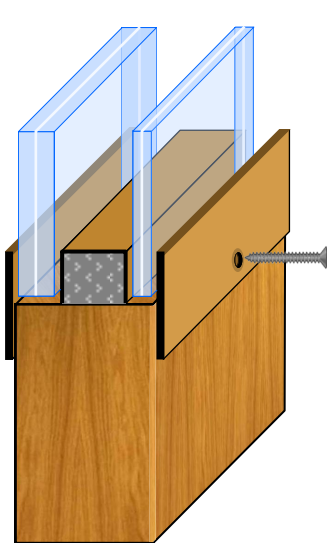
Special purpose glass is available, including non-reflective, low iron, one-way mirror, bullet-resistant and more.

Contact factory for more information on built-to-order sound control doors and windows.

Glass Lite Kits for Wood Doors

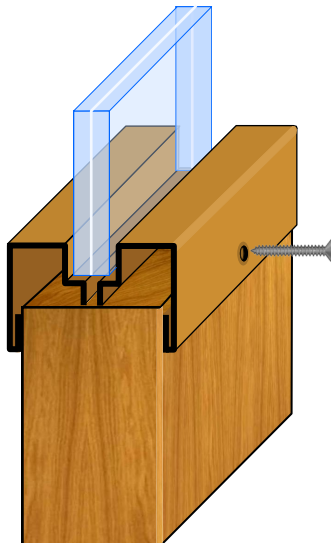
Stiles also offers moulding configurations not shown below. Contact factory for more information.

NOTE: Removable glass stops are typically installed to the interior of the building.
Metal mouldings and glass spacers for wood doors can be color-match painted to blend with wood



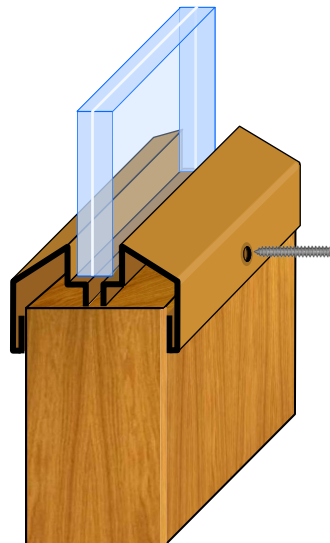
ALK-2 (STD)

1-3/4" Wood Door
All Dual Glass Configurations
*Metal can be finished to match wood



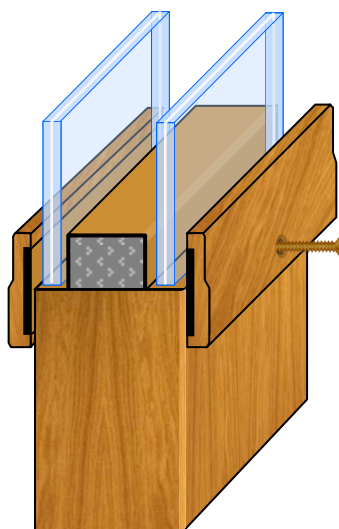
ALK-3 (STD)

1-3/4" Wood Door
All Single Glass Configurations
*Metal can be finished to match wood



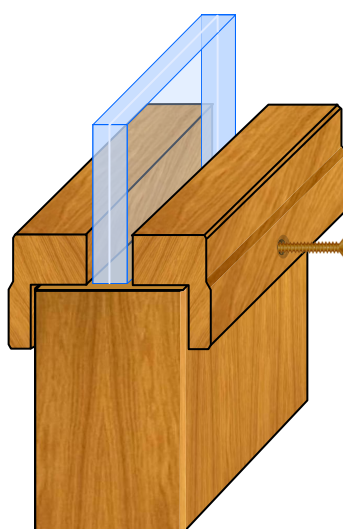
ALK-4

1-3/4" Wood Door
All Single Glass Configurations
*Metal can be finished to match wood



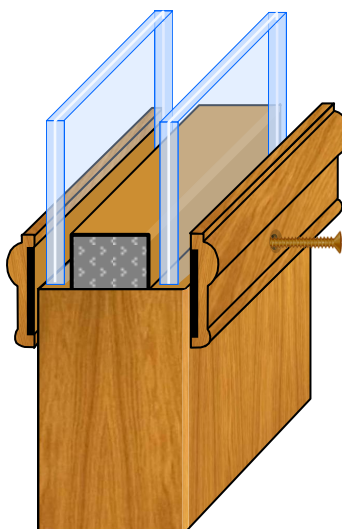
AWLK-5A

1-3/4" Wood Door
All Dual Glass Configurations



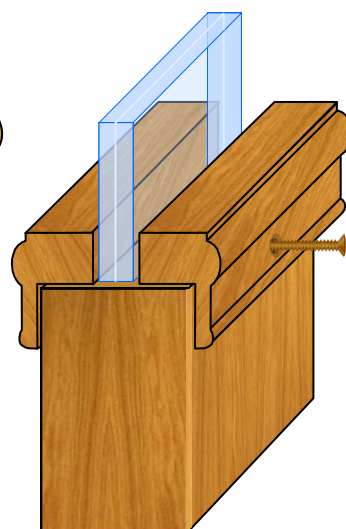
AWLK-5B

1-3/4" Wood Door
All Single Glass Configurations



AWLK-6A

1-3/4" Wood Door
All Dual Glass Configurations



AWLK-6A

1-3/4" Wood Door
All Single Glass Configurations

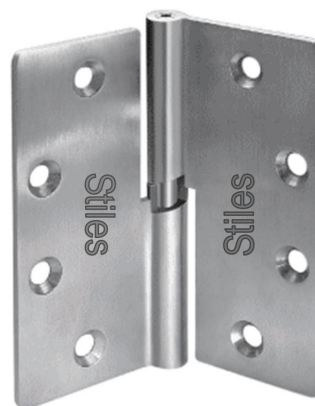
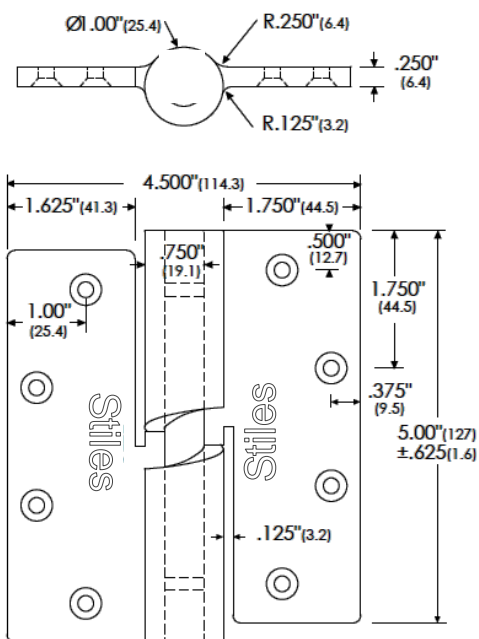


5" Hinge Specs

Size	5" X 4-1/2"
Hole Pattern	STD Template
Screw Size	12-24 X 3/4" C.S. Head
Weight Bearing	Up to 900 lbs. per 1-1/2 pr.
Lift Dimensions	90 deg. = 1/8" / 180 deg. = 1/4"
Bearing	Self-lubricating
Finish	a) Prime Paint b) Finish Paint

Options

Finish	a) Stainless Steel b) Plated
--------	------------------------------

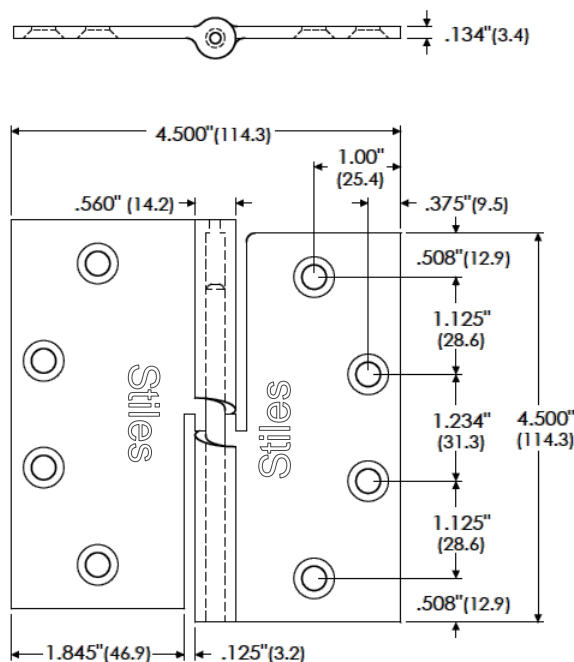


4-1/2" Hinge Specs

Size	4-1/2" X 4-1/2"
Hole Pattern	STD Template
Screw Size	12-24 X 3/4" C.S. Head
Weight Bearing	Up to 500 lbs. per 1-1/2 pr.
Lift Dimensions	90 deg. = 1/8" / 180 deg. = 1/4"
Bearing	Self-lubricating
Finish Options	a) Prime Paint b) Finish Paint

Options

Finish	a) Stainless Steel b) Plated
--------	------------------------------



Over the years, we have experienced various situations when coordinating the finish hardware with sound assemblies. It is not our intention to change the intended design of the project, but to point out that certain hardware combinations may compromise the effectiveness, or usefulness of the acoustical product.

In order for Stiles to certify the STC rating of an assembly, it must be fabricated as tested by a certified acoustical laboratory. Our doors have a factory supplied door bottoms and frames have factory applied perimeter seals. Neither item is designed to have hardware, nor any other item attached to it.

Before manufacturing can commence, there must be a review of the hardware schedule to see if any of the following problems could potentially occur. We have found that the best time to do this review is at the time of submittal / when shop drawings are prepared. If, during this review, potential problems are discovered, the draftsman can explain them in an RFI, outlining possible solutions. A disclaimer on all proposed possible solutions should be included. Stiles has trained acoustical associates ready to assist you in every manner.

Description	Potential Problem	Possible Solution
Locks		
1. Cylindrical Lock with knob handle	PS1 Perimeter seal is 1-3/32" high, and therefore a lock with a 2-3/4" backset and a knob handle is too close to the seal and may cause hand injury	1. Change to a lever handle 2. Change to a 3-3/4" backset
2. Mortise Lock with Knob Handle	They are available with a 2-3/4" backset only, and may cause hand injury	1. Change to a lever handle
3. Rose Size	PS1 perimeter seal is 1-3/32" high. If the rose is larger than 2-1/2" in diameter, it may hit the seal, thus preventing the door from closing. May also cause a hand injury.	1. Change to a Rose no larger than 2-1/2" in diameter
Panic / Exit Devices		
1. Concealed Vertical Rod type Panic Device (i.e. Von Duprin 8847)	This device requires that the interior area of the lock edge be open the full height of the door. This eliminates some of the sound retardant core and may effect the sound performance of the assembly	1. Increase the STC rating to compensate for the possible loss 2. Change to a surface mounted vertical rod
	This device does not allow for the use of a mortised door bottom.	Change to a surface-mounted door bottom (i.e. ADB5)
2. Surface Mounted Vertical Rod type Panic / Exit Device (i.e. Von Duprin 8827)	The latch at the head is mounted on the frame soffit in the same area where the sound seal is located. The sound seal is not designed to have the latch mounted on it. Also, if the seal is cut to permit the mounting of the latch, the sound seal will leak.	The surface applied latch should be mounted on a "Z" bracket (furnished by Stiles) at the head, NOT on the sound seal.
3. Rim Type Panic / Exit Device (i.e. Von Duprin 88 or 99)	This device requires that the surface-applied latch be mounted on the frame soffit or on top of the sound seal. This interferes with the sound seal. The sound seal is not designed for this	Change to a mortise type device where the strike is mortised into the rabbet area of the frame; not the soffit / stop.

Description	Potential Problem	Possible Solution
Panic / Exit Devices (continued)		
4. Panic / Exit Devices on door pairs with an overlapping astragal	An overlapping astragal is required to achieve the STC rating. If both leaves are active, as is the case when panic / exit devices are used, the astragal can prevent the doors from closing properly.	Add a door coordinator.
Closers		
1. Parallel Arm Closers	This type of closer is generally mounted on the frame soffit, which will interfere with the sound seal.	1. Mount the arm bracket behind the sound seal. 2. Change to a top of jamb mounted closer.
2. Concealed Overhead Closer	This type of closer is mortised into the head of the frame, and interferes with a portion of the sound seal that will cause a sound leak. When Cam Lift Hinges are required, they move the door up and down as the door opens and closes. A concealed overhead closer does not have a knuckle that will permit this type of movement. This could cause excessive wear to closer, while greatly reducing its service life.	1. Change to a surface-mounted closer. 2. Change to standard hinges, which do not move the door up and down; change to an automatic door bottom.
3. Rixon Floor Closer	This type of closer is mounted into the bottom of the door, preventing the use of a mortise door bottom.	1. Change to a surface-mounted closer. 2. Change to a surface-mounted door bottom.
Flush Bolts		
1. Flush Bolts	The bottom flush bolt operates through the bottom of the door, preventing the use of a Mortise automatic door bottom.	Change to a surface-mounted automatic door bottom.
Thresholds		
1. Fluted, Grooved, or Abrasive Finished Thresholds	These thresholds can cause sound leaks.	Change to a smooth metal threshold set in mastic.
2. Carpet underneath the door or underneath the threshold	When carpet runs under a door or threshold, a sound leak may occur.	Install a smooth metal threshold set in dense mastic under the door, with the carpet butting up to it.
Mullions		
1. Hardware Mullions	Mounting bracket interferes with perimeter seal.	Change to a Von Duprin 9954 Removable Mullion. The mounting brackets are much less intrusive.

Sampling of Recent Sound Control Projects



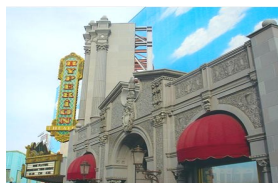
Chino Hills High School
Chino Hills, CA

Carmichael Kemp Architects
9 Units, STC 43



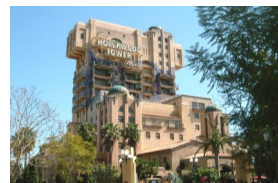
College of the Canyons
Santa Clarita, CA

Spencer-Hoskins Architects
30 Units, STC 52



Disney Hyperion Theater
Anaheim, CA

Disney Imagineering
60 Units, STC 51



Disney Tower of Terror
Anaheim, CA

Disney Imagineering
4 Units, STC 51



Grays Harbor College
Aberdeen, WA

SRG Architects
6 Units, STC 50



L.A. Convention Center
Los Angeles, CA

Gruen Associates
75 Units, STC 49-51



Lucas Film-Skywalker Ranch
Nicasio, CA

25 Units, STC 49-51



Moorpark College
Moorpark, CA

Spencer-Hoskins Architects
65 Units, STC 45



Newark Memorial H.S.
Newark, CA

Deems Lewis McKinley
6 Units, STC 49



Oregon Convention Center
Portland, OR

ZGF Architects
96 Units, STC 44-51



Portland Community College
Portland, OR

Yost Grubbe Hall Architects
6 Units, STC 49



Ronald Reagan Fed Building
Santa Ana, CA

Gruen Associates
262 Units, STC 45-51



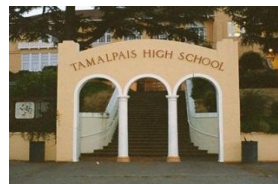
SFO International Airport
S. San Francisco, CA

Skidmore, Owings & Merrill
24 Units, STC 49



LLNL / Sandia
Livermore, CA

Dekker, Perich + Sabatini
36 Units, STC 51



Tamalpais High School
Mill Valley, CA

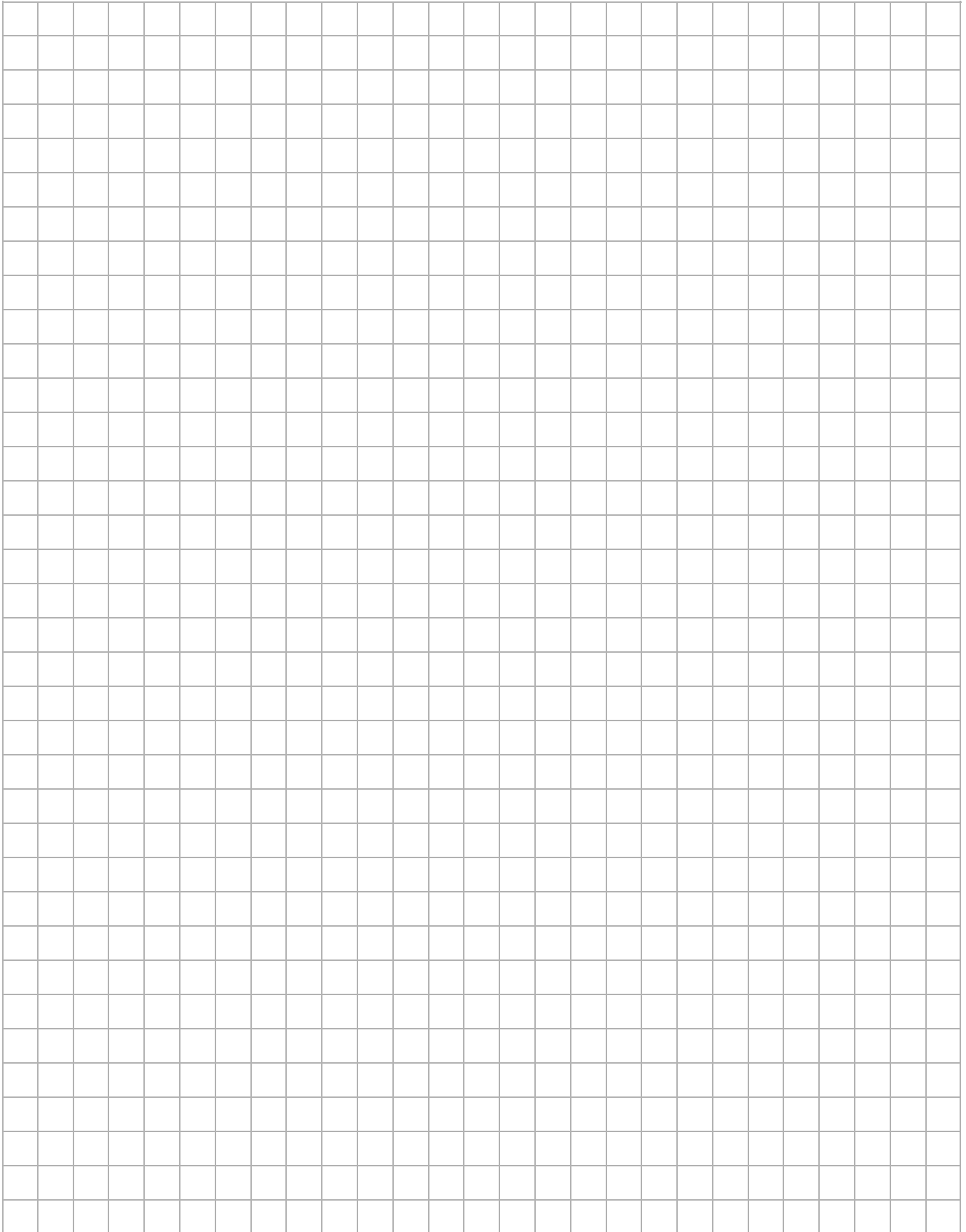
Quattrocchi Kwok
15 Units, STC 40



UC Davis / Math - Science
Davis, CA

A.C. Martin
2 Units, STC 49

Notes



PART I GENERAL

1.01 SUMMARY

- A. Description: This section includes Swinging Steel Sound Control Door, Frame and Window Assemblies and Wood Doors where shown on the drawings and as specified here in, including Sound Seal Gasket System, Door Bottom Seal, Cam-Action Hinges at assemblies above STC 48, Glass and Glazing.
- B. Related work not included in this section:
 - 1. Steel doors and frames.
 - 2. Wood doors.
 - 3. Finish hardware including lock cylinders and thresholds.
 - 4. Installation of sound control glass and glazing in sound control window frames.
 - 5. Caulking between frames and masonry.
 - 6. Structural members.
 - 7. Finish painting.

1.02 QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association.
 - 2. ASTM, American Society for Testing and Materials.
 - 3. ADA, Americans with Disabilities Act.
 - 4. NAAMM/HMMA, National Association of Architectural Metals Manufacturers
 - 5. WDMA, Wood Door Manufacturer's Association
- B. Manufacturer shall have been regularly engaged in manufacturing sound control door, frames and window assemblies for a period of at least ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- C. Sound Assemblies shall be tested by a certified independent laboratory in accordance with ASTM E90, ASTM E413 and ASTM E1408.
- D. Exterior sound assemblies shall be tested for Air and Water infiltration in accordance with ASTM E283, E330 and E331
- E. Allowable Tolerances as stated in NAAMM/HMMA Technical Manual.

1.03 SUBMITTALS

- A. Shop drawings: Indicate in elevation with sections and details to scale. Include STC rating with independent test report, glass and metal thicknesses, joining details, field connections, anchorage, concealed and exposed fastening methods, door and framing reinforcement, and metal finishes. Indicate compliance with specified design criteria.
- B. Maintenance data: Give instructions for general maintenance and repair of surfaces and finishes.
- C. Maintenance data: Give instructions for general maintenance and repair of surfaces and finishes.

1.04 WARRANTY: Sound Control Door and Frame assemblies shall be warranted from defects in workmanship and quality for a period of one (3) years from date of shipment when stored, installed and painted in accordance with manufacturers instruction and NAAMM / HMMA Technical Manual. Adjustments made necessary by shifting or settling of building structure shall not be covered by warranty.

PART II PRODUCTS

2.01 DOOR ASSEMBLIES

- A. The Sound Control Door products are based on Stiles Custom Metal, Inc. Audia™ Model _____, STC Rating _____. www.stilesdoor.com
 - 1. Provide sound control assemblies complete with door, frame, anchors, sound seals and door bottom seal of type and sizes required by manufacturer to achieve specified STC rating. Cam-action hinges shall also be included at ratings above STC 48. All other door hardware is specified and furnished in "Door Hardware" section.

Audia™ SOUND CONTROL DOOR & WINDOW ASSEMBLIES (continued)

2. Materials: Door face sheets shall be 0.053 in. (1.3mm) min. thickness. Exterior openings shall be A60 Galvanized steel.
 3. Construction: All doors shall be of the types and sizes shown on approved shop drawings, with no visible seams or joints on faces. Minimum door thickness 1-3/4 in. (44mm). The use of lead or asbestos in door construction shall not be permitted.
 4. Glazed Lite Kits (if applicable) shall be furnished complete with a removable glass stop system and glazing gasket seals designed and tested to meet required STC rating.
 5. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and faces of all welded joints shall be dressed smooth. Doors and frames shall be treated to insure maximum paint adhesion and shall be painted on all accessible surfaces with one coat of a rust inhibitive, modified Alkyd, Zinc compound, gray primer that meets or exceeds all ANSI A250.10-98 performance criteria. Primer coat shall be fully cured prior to shipment. Red or brown colored primers shall not be permitted.
- B. Wood Doors are based on Stiles Custom Metal, Inc. Audia™ Model _____, STC Rating _____. www.stilesdoor.com
1. Provide sound control assemblies complete with wood door, steel frame, anchors, sound seals and door bottom seal of type and sizes required by manufacturer to achieve specified STC rating. Cam-action hinges shall also be included at ratings above STC 48. All other door hardware is specified and furnished in "Door Hardware" section.
 2. Construction: All doors shall be of the types and sizes shown on approved shop drawings.
 - a. Visible seams or joints on door faces are NOT permitted.
 - b. Veneer thickness, internal sound retardant core and perimeter door edge construction to be manufacturers standard for the specified model.
 3. The use of lead, formaldehyde or asbestos in door construction shall not be permitted.
 4. Face veneer species, cut and color shall match that specified in "Wood Door" section.
 5. Glazed Lite Kits (if applicable) shall be furnished complete with removable glass stops and glazing gasket seals designed and tested to meet required STC rating.
 6. Factory finishing of doors shall comply with AWI standards and the Wood Door Section.

2.02 DOOR FRAMES

- A. Provide door frames, complete with perimeter sound seals and wall anchors.
- B. Construction: Frames shall be constructed of 0.067 in. (14 Ga.)(1.7mm) minimum thickness. Exterior frames shall also have an A60 zinc coating. Frames shall be continuously welded assemblies. Knocked-down frames shall not be accepted.
- C. Sound Seal assemblies shall consist of a continuous adjustable retainer channel and compression or magnetic sound seal gasket system designed and tested to meet required STC rating. Bump type thresholds, adhesive-attached seals, including thin bronze strip seals shall not be accepted.

2.03 FIXED WINDOW SYSTEMS

- A. The Sound Control Fixed Window Systems are based on Stiles Custom Metal, Inc. Audia™ Model _____, STC Rating _____. www.stilesdoor.com
- B. Provide fixed sound control windows and door frames with, transom lights, and sidelights.
- C. Materials: Window Frames shall be constructed of 0.067 in. (14 Ga.)(1.7mm) minimum thickness. Exterior frames shall also have an A60 zinc coating.
- D. Construction: Window frames shall be welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted.
- E. Assemblies shall be furnished complete with welded steel frame, fixed stops and glazing gasket seals designed and tested to meet required STC rating. Loose glass stop shall be attached with concealed fasteners. Exposed fasteners shall not be accepted.

Audia™ SOUND CONTROL DOOR & WINDOW ASSEMBLIES (continued)

2.04 SOUND CONTROL GLASS

A. Glass for Door Lites: (choose)

[Glass shall be furnished and installation by the sound door / window manufacturer in type and thickness required to meet the STC rating.]

[Glass shall be furnished by the sound door / window manufacturer in type and thickness required to meet the STC rating. Glass installations shall taking place in the field by glazing contractor in accordance with the manufacturers instructions.]

[Glass shall be furnished and installed in the field by glazing contractor. Glass type, thickness and installation method in accordance with the sound door / window manufacturers instructions.]

B. Fixed Windows: (choose)

[Glass shall be furnished by the sound door / window manufacturer in type and thickness required to meet the STC rating. Glass installations shall taking place in the field by glazing contractor in accordance with the manufacturers instructions.]

[Glass shall be furnished and installed in the field by glazing contractor. Glass type, thickness and installation method in accordance with the sound door / window manufacturers instructions.]

2.05 FINISH HARDWARE

- A. Doors and frames shall be mortised, reinforced, drilled and tapped at the factory for completely Templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface mounted, anchor hinges, or non-template mor-tise hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM/HMMA 830 and 861.
- B. Doors shall be constructed to function with standard builders hardware, custom modifications of hardware shall not be permitted.
- C. Hardware supplier shall coordinate hardware compatibility with the sound control door manufacturer.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

- A. Deliver and store materials to prevent damaging and marring finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful surfaces and from careless handling, storage or machining.

3.03 INSTALLATION: It shall be the responsibility of the installation contractor to perform the following:

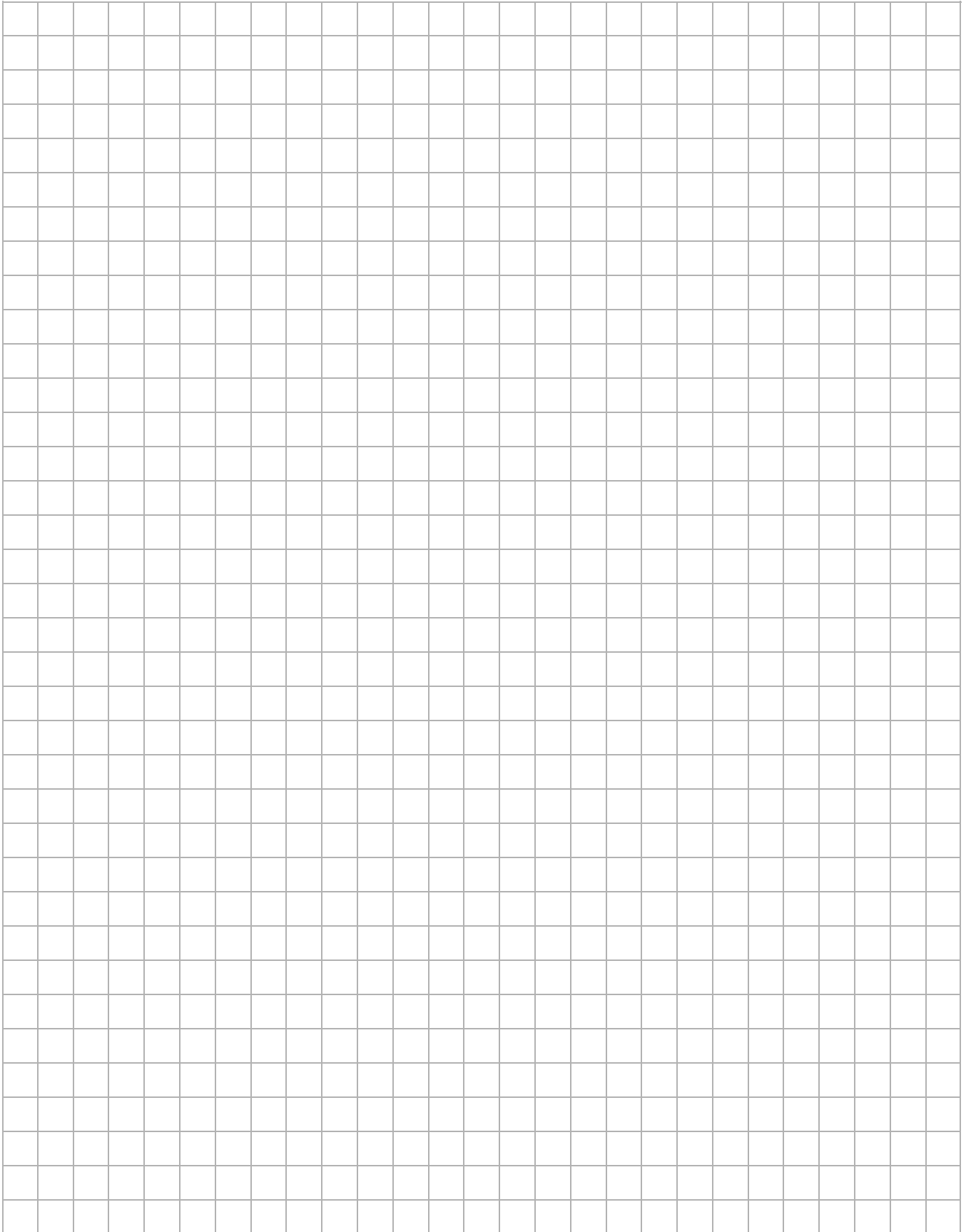
- A. Tolerances shall meet the requirements of HMMA 840.
- B. Solidly pack throat of frames which are installed in metal-stud and gypsum-wallboard partitions with 12 lb./cubic ft. (2.72kg to 5.44kg) density mineral wool insulation.
- C. Solidly grout-fill frames installed in masonry or poured in place to eliminating all voids.
- D. The floor area under a sound control door shall be flat, level and smooth.

3.04 CLEANING: Clean doors and frames in accordance with manufacturer's special instructions.

3.05 MAINTENANCE: Instruct the Owner's Maintenance Personnel regarding the operation and maintenance of these doors.

End of Section

Notes





Stiles Stainless Steel... The Fusion of Art & Technology.

When stainless steel doors and frames are required, Stiles works closely with designers to produce entrances that are as functional as they are beautiful. Whether your project calls for aesthetics or high performance in corrosive or laboratory environments, we have the experience to turn your vision into reality.

- Commercial Entrance Systems
- Flush, Glass Lite and Solid Panel Configurations
- 304, 316, and 430 Alloys
- Custom designed to suit your requirements
- Sustainable materials and construction processes
- Abraded Finishes, Textures and Embossing

Multiple features including:

- Bullet Resistant
- Sound Control
- Fire Rated

Section Contents

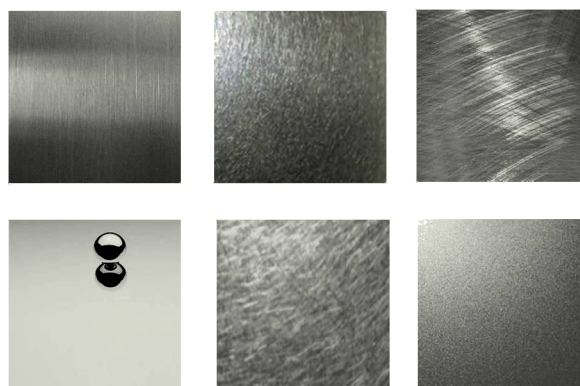
Types + Applications of Stainless	SS-1.0
Stainless Finishes	SS-2.0
Textured, Embossed +Etched SS	SS-2.1
Colored Stainless Steel	SS-2.2
Sampling of Stainless Products	SS-2.3

Doors

Stainless Steel Stiffened Core (Fiberglass or Recycled Cotton Batt Insulation)	SS-3.0
Stainless Steel Composite Doors	SS-3.1
Lab-Tek SS™ (Hermetically Sealed Door)	SS-3.2
Commercial SS Entrance Systems	SS-3.3
SS True Stile + Rail	SS-3.4
Endura SS™ (Impact Resistant Core)	SS-3.5
Gamma SS™ (Lead Lined Core)	SS-3.6
SS Temperature Rise Core	SS-3.7

Elevations + Construction Data

Glass Lite + Panel Mouldings	SS-4.0 to 4.1
Vertical Door Edge Options	SS-4.2
Meeting Stiles + Astragals	SS-4.3
Top + Bottom Details / Louvers	SS-4.4
Weatherization	SS-4.5
Specifications	Appendix



Sampling of Stainless Doors





For over 20 downloadable comprehensive handbooks on stainless steel, visit the Stainless Steel Information Center online at:

<http://www.ssina.com/publications/index.html>

Alloy 304

Characteristics:

Non-magnetic chromium nickel
(Most common alloy)

Applications:

Hospitals, health care, food processing plants, some chemical plants, swimming pool areas, most exterior applications

Exterior Doors

Face sheets, 16 GA 304 stainless steel. All door components shall be stainless steel. Core: vertical 22 GA stiffeners laminated to door skin. Vertical Edges: Hairline seam reinforced with continuous 16 GA stainless steel channel. Lock-seam type edge not acceptable. Top and bottom edges shall have continuous 16 GA channels, spot welded to both face sheets. Top edge shall be sealed watertight.

Interior Doors

Door skin, 16 GA 304 stainless steel. Core: Kraft honeycomb. Vertical Edges: Open seam. Top and bottom edges shall have continuous 16 GA channels, spot welded to both face sheets.

Alloy 316

Characteristics:

Higher percentage of chromium-nickel than type 304

Applications:

Exterior, high-humidity, salt air environments. Highly corrosive environments.

Exterior Doors

Salt Environment / Pharmaceutical Grade

Door skin, 16 GA 316 stainless steel. All door components shall be stainless steel. Core: vertical 22 GA stiffeners laminated to door skin with voids between stiffeners filled with polystyrene. Vertical Edges: Hairline seam reinforced with continuous 16 GA stainless steel channel. Lock-seam type edge not acceptable. Top and bottom edges shall have continuous 16 GA channels, spot welded to both face sheets. Top edge shall be sealed watertight.

Alloy 430

Characteristics:

Magnetic

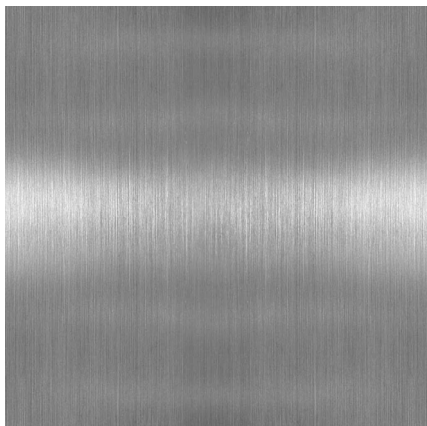
Applications:

Interior, non-corrosive environments; where alloy 304 will not meet fire rating requirements.

Interior Doors, Large Fire Rated Openings

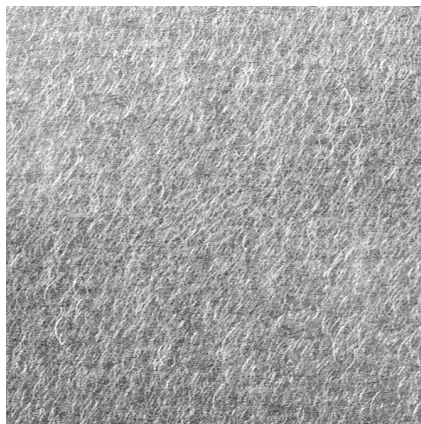
Door skin, 16 GA 430 stainless steel. Core: Kraft honeycomb. Vertical Edges: Open seam. Top and bottom edges shall have continuous 16 GA channels, spot welded to both face sheets.

Common Stainless Steel Abraded Finishes



No. 4 Finish

A lightly grained surface produced by single-directional abrading. The most common stainless finish for architectural products.



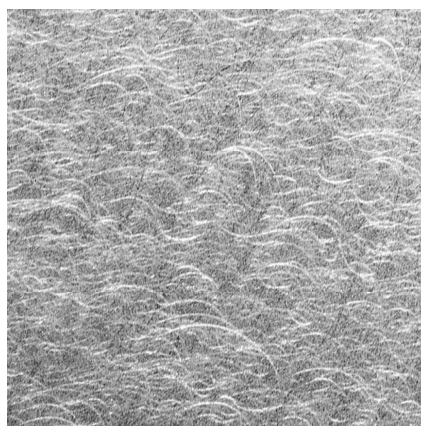
Non-Directional Finish

Produced by fine grit orbital sanding (non-directional) on No. 2B (mill finish) stainless steel.



No. 8 Finish

(Mirror Polished)
Obtained by polishing with successively finer abrasives, then buffing with a very fine compound.



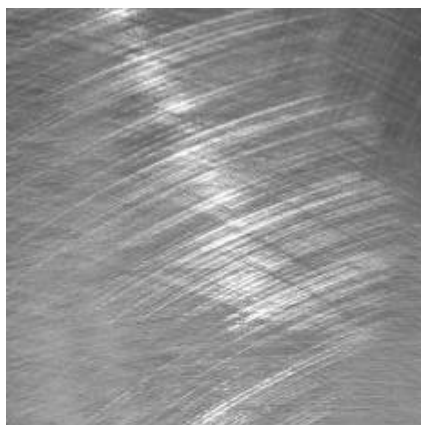
Angel Hair Finish

Produced by medium-fine grit orbital sanding, non-directional.



Bead Blasted Finish

Produced by bead-blasting No. 2B (mill) stainless steel. Surface has a matte finish with a dull to glossy sheen depending on the size of glass bead utilized.



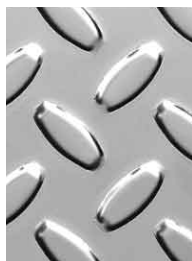
Random Swirl Finish

Grained surface produced by random multi-directional abrading.

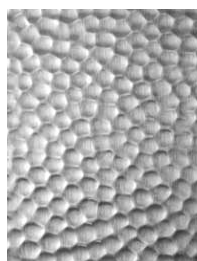
Textured, Embossed + Etched Stainless Steel

Textured / embossed stainless steel can be utilized for a variety of applications, including panel material. By combining textures and finishes, i.e. a door in No. 4 finish with panels in a textured metal, the result is striking.

Textured Stainless



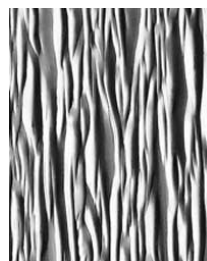
Diamond



Hammered



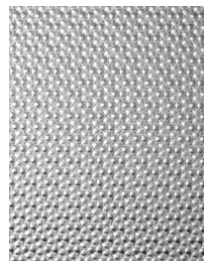
Fluted



Bark



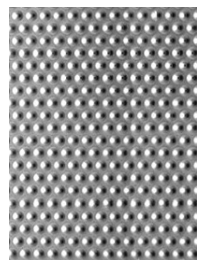
Leather



Pebble



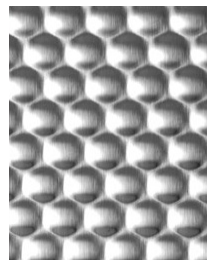
Quilt



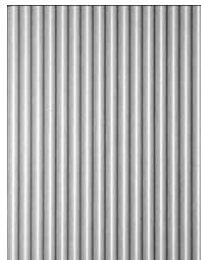
Dot



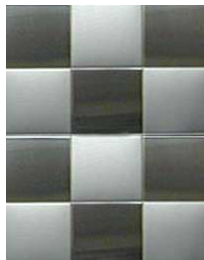
Diagonal



Matrix



Courderoy



Check

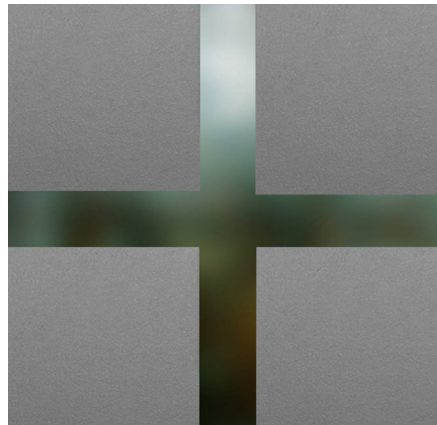
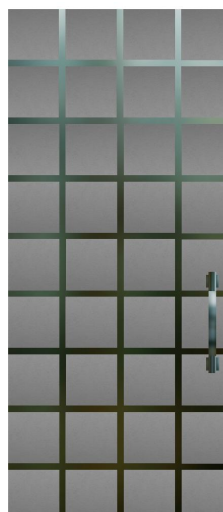
Embossing

Stiles produces embossed stainless door faces available in an unlimited number of design configurations, utilizing square or round dies in several different sizes.



EnviroEtch™

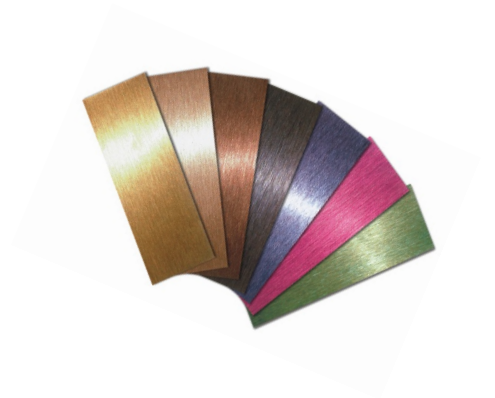
Etched finishes are available in varying intensities, producing a striking contrast between finishes. Designs are limited only to your imagination and may include geometrics, free-forms, corporate logos, etc.



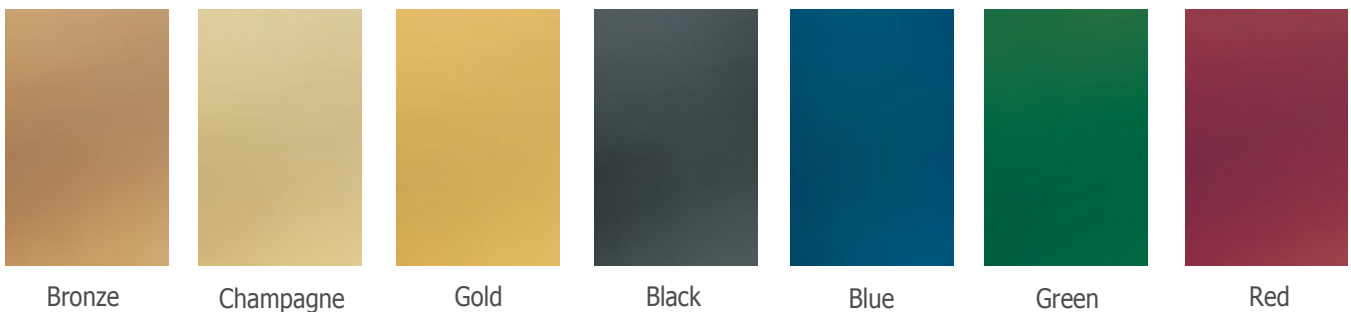
EnviroEtch™ in a geometric pattern on a #4 finish stainless steel door.

Colored Stainless Steel

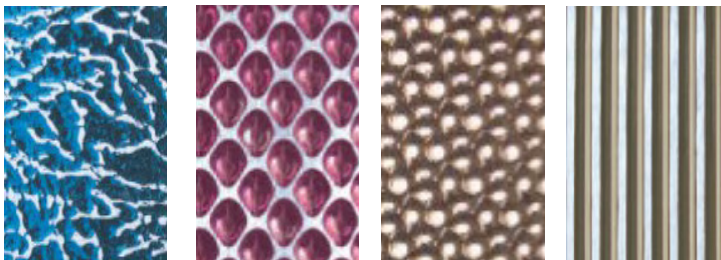
When stainless steel is specified, there is no reason to limit the color choice to silver. A rainbow of choices are available in both satin (grained) and translucent (mirror polished) colors providing considerable design flexibility for doors and frames. Contact factory for more information.



Mirror or Satin Finishes



Sampling of Colored Textures

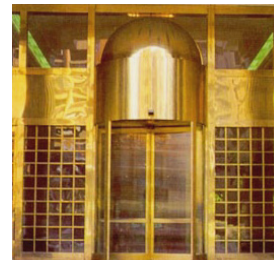


Pampas

Pearl

Paladin

Satin



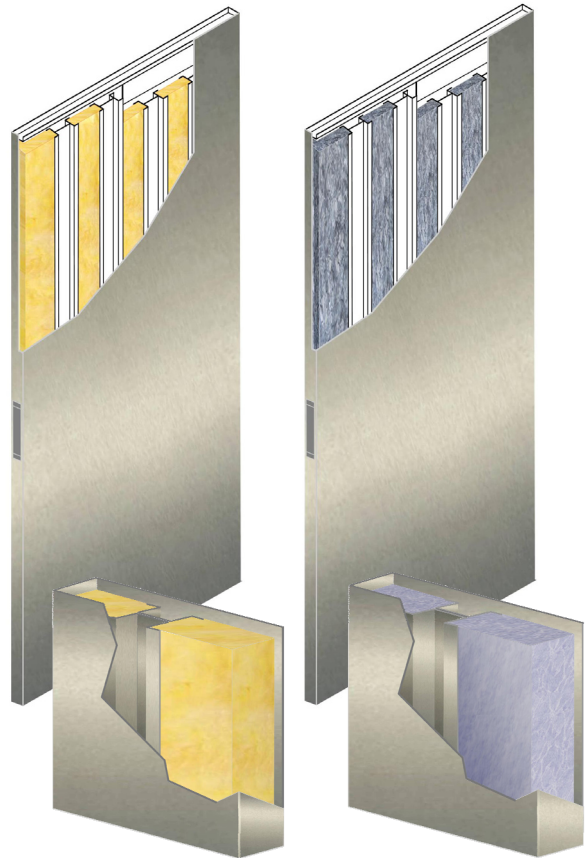
Colored Stainless Steel

- Entrance Doors + Frames
- Elevator Door Faces
- Panels + Surrounds

Stainless Steel Stiffened Doors Fiberglass or Recycled Batt Insulation

Description	Stainless Steel Stiffened doors are built-to-order for both interior and exterior high frequency use locations.
NAAMM / HMMMA	866 (Stainless Steel Hollow Metal)
Material	1. 304 Stainless Steel 2. 316 Stainless 3. 430 Stainless See Types of Stainless Steel
Faces	18, 16, 14 or 12 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	See SS Vertical Door Edges
Top / Bottom	16 GA SS Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA SS, 1-1/2" X 10" Locks: 11 GA SS or equal # threads Closers: 14 or 12 GA SS
Service Temp	-65° to 200° (F)
Core	22 GA Stainless Steel Stiffened, 5-1/4" apart
Insulation	1. Fiberglass Batt, 1.5 lb. Density R Factor = 5.25 U-Value = .19 2. Optional Recycled Cotton Batt R Factor = 6.84 U-Value = .14
STC	Min. Sound Control Rating: STC 39 See Sound Control
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
Finishes	See Abraded Finishes
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship

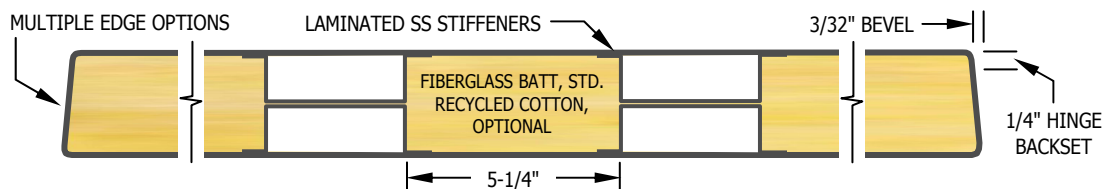
NOTE: Above door data varies depending on specific design criteria



Environmental Data

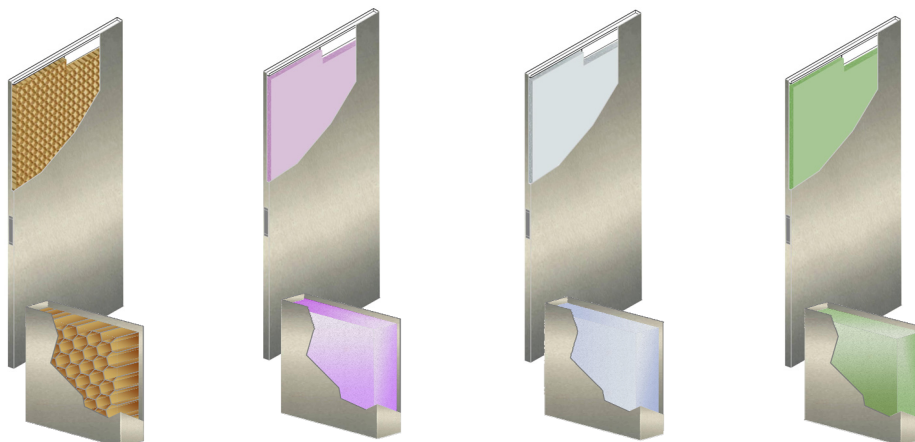
As encapsulated door core materials, neither Fiberglass or Recycled Cotton Batt insulation pose health hazards or produce toxic gas emissions. During fire, no toxic gasses are produced by either insulation material.

All resins and bonding agents utilized in fabrication are low VOC / environmentally friendly. The extremely long life cycle of the Stiles Stainless Steel Stiffened door makes it a truly sustainable product.



Door Construction Options

Door Thickness	1-3/4" (Special thicknesses available)
Face Skins	1) 18 Gauge 2) 16 Gauge 3) 14 Gauge 4) 12 Gauge
Material Options	1) 304 Stainless [Exterior] 2) 316 Stainless [Exterior, Salt Air] 3) 430 Stainless [Interior]
Door Edges	Beveled, 1/8" in 2"
Edge Construction Options	1) Continuous Welded, Seamless 2) Hairline Seam 3) Air-Tek™ 4) Hermetically Sealed See Vertical Door Edge Options, p. SS-4.2
Top and Bottom Channels	16 GA See Door Top + Bottom Details, p. SS-4.4
Hinge Reinforcements	7 GA Stainless Steel, 1-1/2" X 10"
Lock Reinforcements	11 GA Stainless Steel or equal # threads
Closer Reinforcements	1) 14 GA Stainless Steel 2) 12 GA Stainless Steel
Finish Options	See Stainless Steel Finish Options, p. SS-2.0
Quick Ship	1, 3, 5, or 10-Day Options See Quick Ship Section
NAAMM / HMMA / SDI	See Individual Door Data Sheets



Door Data

Core Type	Honeycomb	Polyurethane	Polyisocyanurate	Polystyrene
Core Density	N/A	2.05 pcf	2.0 pcf	1.5 pcf
Compression Strength	45 psi	27 psi	28 psi	35 psi
R-Factor	2.44	11.01	12.40	8.05
U-Value	.40	.09	.08	.12
Service Temperature (F)	32° to 90°	-150° to 200°	-100° to 250°	-50° to 130°
Min. Sound Control Rating	STC 32	STC 26	STC 26	STC 23
Fire Rating	See Fire Rated Section			
Bullet Resistant	UL Levels 1-8 See Bullet Resistant Section			

Lab-Tek™ Stainless Steel Clean Room Doors Hermetically Sealed

Description	Lead-Tek Stainless Steel doors are built-to-order, suitable for both interior and exterior locations.
NAAMM / HMM	866 (Stainless Steel Hollow Metal)
Material	1. 304 Stainless Steel 2. 316 Stainless 3. 430 Stainless See Types of Stainless Steel
Faces	18, 16, 14, or 12 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	Continuous Welded all 4 edges Hermetically Sealed See Vertical Door Edges
Top / Bottom	16 GA, Sealed all 4 edges See Door Top & Bottoms
Reinforcements	Hinges: 7 GA SS, 1-1/2" X 10" Locks: 11 GA SS or equal # threads Closers: 14 or 12 GA SS
Service Temp	-20° to 150°
Core	Varies, depending on application
STC	Available (Contact factory)
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
Finishes	See Abraded Finishes



NOTE: Above door data varies depending on specific design criteria

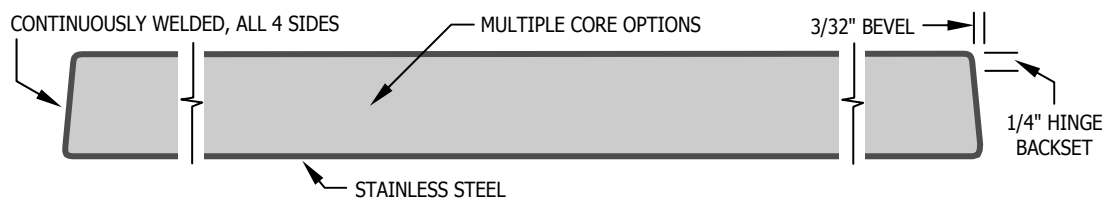
- Engineered for Pharmaceutical, Medical, Hi-Tech, and all other laboratory and clean room applications.
- Seamless - continuously welded on all 4 door edges.
- Available in a variety of configurations, sizes, and styles, with or without glass lites.
- Flush and sloped stop glazing options to repel bacteria and shed water during wash-down / cleaning operations.
- Designed for high frequency use without sacrificing appearance.
- Hybrid options available including bullet-resistant and fire rated.



Bacteria
Resistant



Vermine
Proof



Commercial Stainless Steel Entrance Doors

Narrow, Medium & Wide Stile



Series 200

2" Stiles + Top Rail
5" Bottom Rail

Series 300

3" Stiles + Top Rail
6" Bottom Rail

Series 400

4" Stiles + Top Rail
8" Bottom Rail

Series 600

6" Stiles + Top Rail
10" Bottom Rail

Options

Tough yet attractive, the clean lines of Stiles Commercial Stainless Steel Entrances are adaptable to numerous specialty features. Create a customized appearance with numerous elevations, materials options, moulding configurations, glass, hardware, and finishes.

Flexibility

Designed to complement new or remodel construction, contemporary or traditional architecture.

Performance

To resist torsion forces, all four Stiles Commercial Stainless Steel Entrance models feature the unparalleled structural integrity of our proprietary high-performance steel construction, far superior to bolt-together aluminum doors.

Economy

Field labor can be reduced with factory-installed hardware, glass, and finishing, making Stiles Entrances as cost-effective as they are attractive.

Configurations

- Swing, Fold, Slide, Lift & Slide
- Single or Double-Acting
- Multiple Moulding Options
- Glass from 1/4" - 1"
- Frame Options
- Elevation Options
- Air-Tek™ Weatherseals

Materials

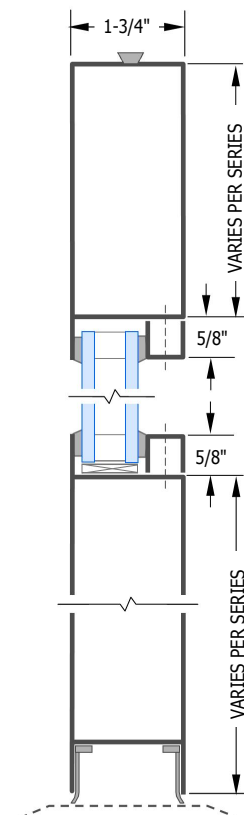
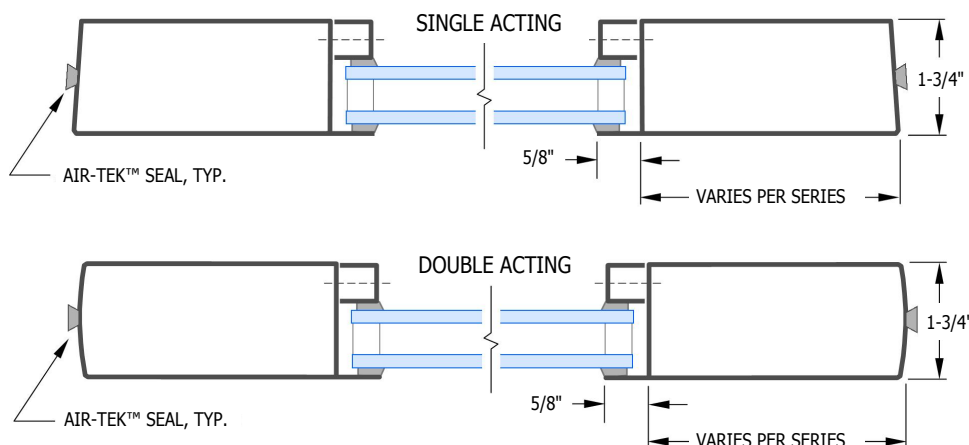
- 304, 316, or 430 Stainless
18, 16, 14, or 12 GA
Also available in steel & bronze
- Factory Finishes and
Surface Treatments
- Green Materials and
Manufacturing Processes
- Extremely Long Life Cycle

Hybrid Systems

- Bullet / Blast Resistant,
Fire Rated, Sound Control

Factory Finishes

- Primed / Painted
- Stainless Surface Textures
- Bronze Surface Textures



True Stile & Rail Stainless Steel Doors

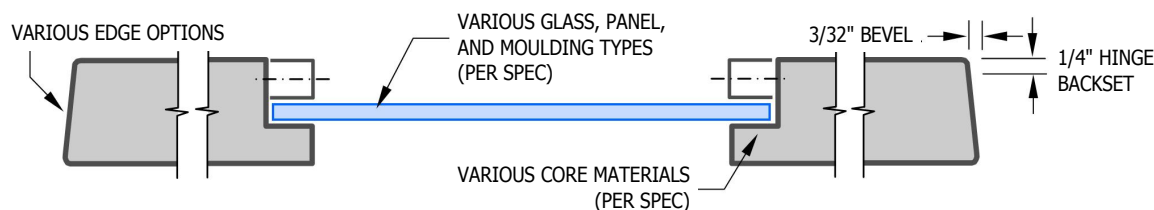
Description	True Stile & Rail stainless steel doors are built-to-order, suitable for both interior and exterior locations.
NAAMM / HMMA	866 (Stainless Steel Hollow Metal)
Material	1. 304 Stainless Steel 2. 316 Stainless 3. 430 Stainless See Types of Stainless Steel
Faces	18, 16, 14, or 12 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	See Vertical Door Edges
Top / Bottom	16 GA SS Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA SS, 1-1/2" X 10" Locks: 11 GA SS or equal # threads Closers: 14 or 12 GA SS
Core Options	Fiberglass, Urethane, Honeycomb, Styrene
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
Finishes	See Abraded inishes
Quick Ship	Contact Factory

NOTE: Above door data varies depending on specific design criteria



Construction

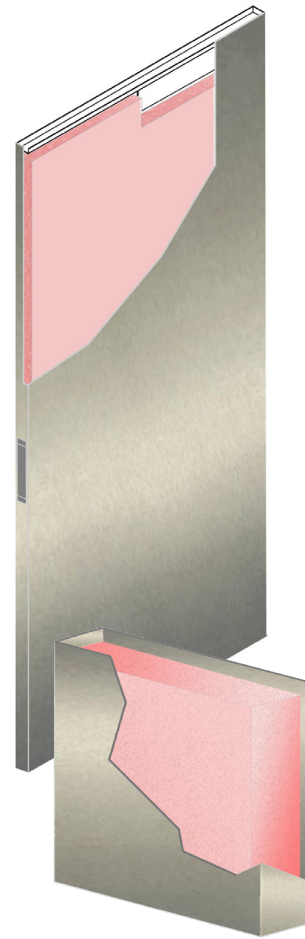
- True Stile & Rail Construction
- Fully Welded - NO TIE RODS
- All Seams Continuously Welded and Finished Smooth



Endura™ Impact Resistant Stainless Steel Doors Impact Resistant Cores, Composite Construction

Description	Endura stainless steel doors are built-to-order, suitable for both interior and exterior locations.
NAAMM / HMMMA	866 (Stainless Steel Hollow Metal)
Material	1. 304 Stainless Steel 2. 316 Stainless 3. 430 Stainless See Types of Stainless Steel
Faces	18, 16, 14 or 12 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	See Vertical Door Edges
Top / Bottom	16 GA SS Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA SS, 1-1/2" X 10" Locks: 11 GA SS or equal # threads Closers: 14 or 12 GA SS
Service Temp	-150° to 200°
Core	Proprietary Impact Resistant R Factor = 3.95 U-Value = .25
Core Density	6.0 pcf
STC	Min. Sound Control Rating: STC 33 See Sound Control
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
Finishes	See Abraded Finishes
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship

NOTE: Above door data varies depending on specific design criteria

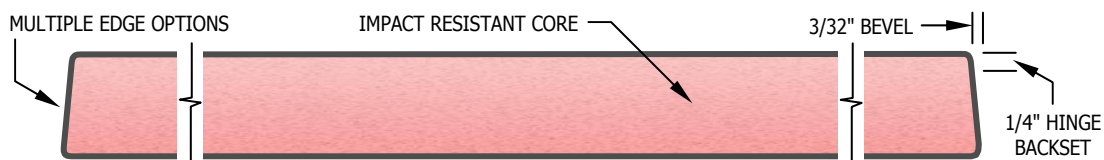


Environmental Data

The proprietary core material is made with recycled materials and has ZERO ozone depleting potential. It is HCFC free.

All resins and bonding agents utilized in the fabrication of Endura doors are low VOC / environmentally friendly. Stock sheet materials are ordered to make provision for minimal waste.

The long life cycle of the Endura door makes it a truly sustainable product.



Gamma™ Lead Lined Stainless Steel Doors Stainless Steel Stiffened with Lead-Lined Cores

Description	Stainless Steel Lead-Lined doors are built-to-order, suitable for both interior and exterior locations.
NAAMM / HMMMA	866 (Stainless Steel Hollow Metal)
Material	1. 304 Stainless Steel 2. 316 Stainless 3. 430 Stainless See Types of Stainless Steel
Faces	18, 16, or 14 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	See Vertical Door Edges
Top / Bottom	16 GA SS Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA SS, 1-1/2" X 10" Locks: 11 GA SS or equal # threads Closers: 14 or 12 GA SS
Service Temp	-20° to 150°
Core	22 GA Stainless Steel Stiffeners w/ Lead Between R Factor = N/A U-Value = N/A
Lead Thickness	Varies per Spec
STC	Available (Contact factory)
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
Finishes	See Abraded Finishes
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship

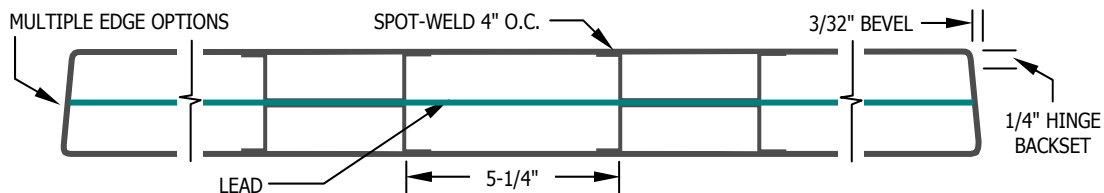
NOTE: Above door data varies depending on specific design criteria



Environmental Data

Recycled lead sheet is utilized for shielding. Lead is toxic when ingested; all precautions are taken during fabrication to prevent exposure. Lead shielding is encapsulated in the Gamma door core, eliminating any exposed lead surfaces.

The long life cycle of stainless steel makes the Gamma door a truly sustainable product.



Temperature Rise Stainless Steel Doors Fire Rated Core, Composite Construction

Description	Stainless Steel Temperature Rise doors are built-to-order, suitable for both interior and exterior locations.
NAAMM / HMMA	866 (Stainless Steel Hollow Metal)
Rating	Temp Rise Rating: 250° F or 450° F
Material	1. 304 Stainless Steel 2. 316 Stainless 3. 430 Stainless See Types of Stainless Steel
Faces	18, 16, 14 or 12 GA
Door Edges	1-3/4" thick, beveled, 1/8" in 2"
Vertical Edges	See SS Vertical Door Edges
Top / Bottom	16 GA SS Channels See Door Top & Bottoms
Reinforcements	Hinges: 7 GA SS, 1-1/2" X 10" Locks: 11 GA SS or equal # threads Closers: 14 or 12 GA SS
Service Temp	(Fire Resistant)
Core	Fire Resistant Core R Factor = 3.95 U-Value = .25
Core Density	32 pcf
Core Strength	Compression Strength: 100 psi
STC	Min. Sound Control Rating: STC 33 See Sound Control
Fire Rating	See Fire Rated
Bullet Resistant	See Bullet Resistant
Finishes	See Abraded Finishes
Quick Ship	1, 3, 5 or 10-Day Options See Quick Ship

NOTE: Above door data varies depending on specific design criteria

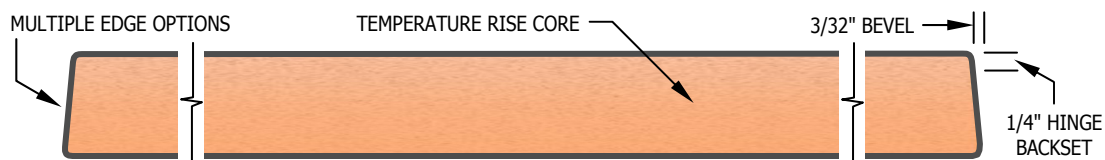


Environmental Data

Temperature Rise composite cores are made from natural mineral materials that pose no environmental threat to landfill.

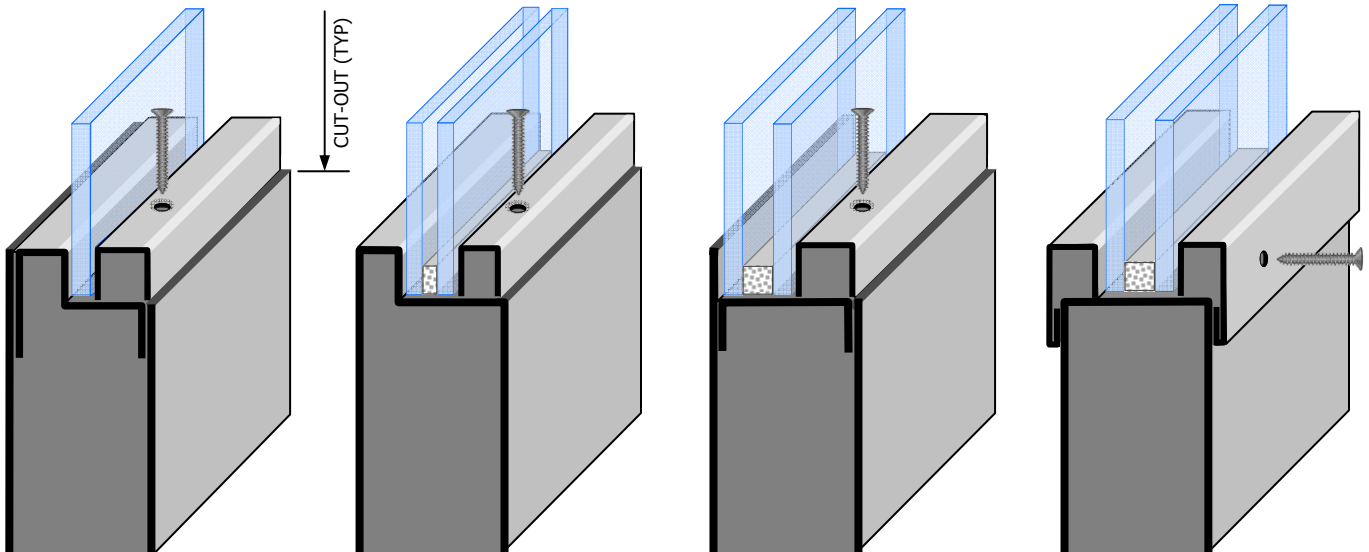
All resins and bonding agents utilized in fabrication are low VOC / environmentally friendly. Stock sheet materials are ordered in sizes that minimize waste.

The long life cycle of stainless steel makes the Temperature Rise door a truly sustainable product.



Stiles also offers moulding configurations not shown below. Contact factory for more information.

NOTE: Removable glass stops are typically installed to the interior of the building.



A

1-3/4" Door
5/8" X 5/8" Glass Stops
1/4" Glass

*Concealed Fasteners Available

B

1-3/4" Door
3/8" X 5/8" Glass Stops
3/4" Insulated Glass

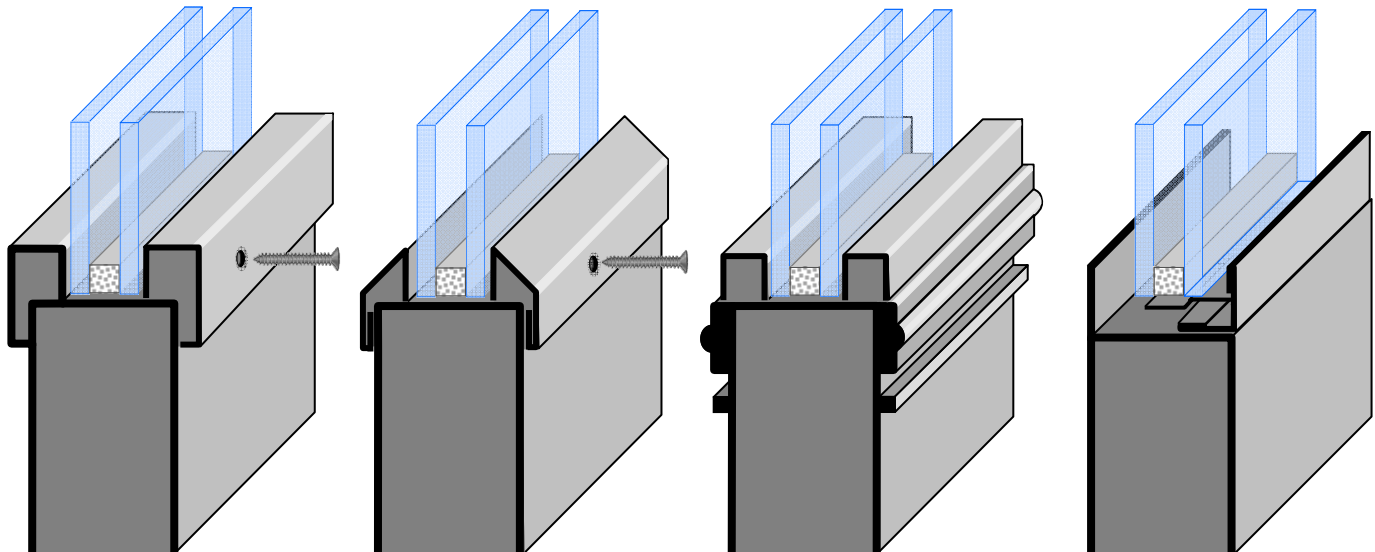
C

1-3/4" Door
5/8" X 5/8" Glass Stops
1" Insulated Glass

*Concealed Fasteners Available

D

1-3/4" Door
7/16" X 1-1/4" Glass Stops
1" Insulated Glass



E

1-3/4" Door
9/16" X 1-1/4" Glass Stops
1" Insulated Glass

F

1-3/4" Door
7/16" X 1-1/4" Glass Stops
1" Insulated Glass

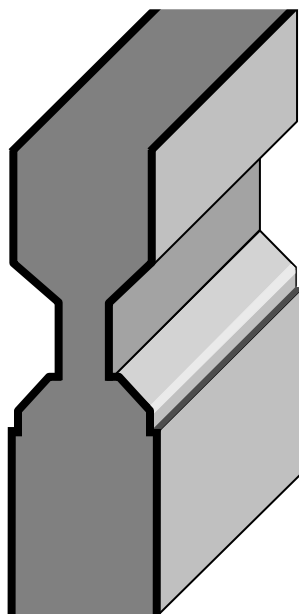
G (Special)

1-3/4" Door
1/2" X 1/2" Glass Stops
(no exposed fasteners)
Solid Stock Moulding Accents
1" Insulated Glass

H

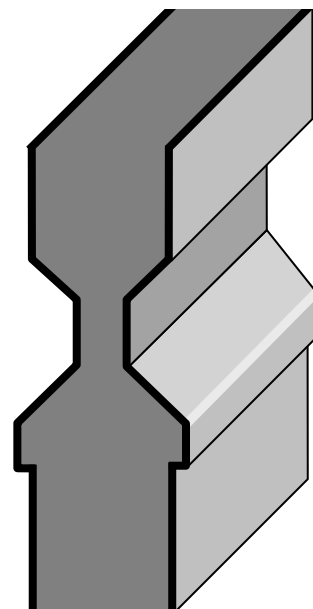
1-3/4" Door
3/4" Flush Clip Stops
(no exposed fasteners)
1" Insulated Glass

Stiles also offers moulding configurations not shown below. Contact factory for more information.



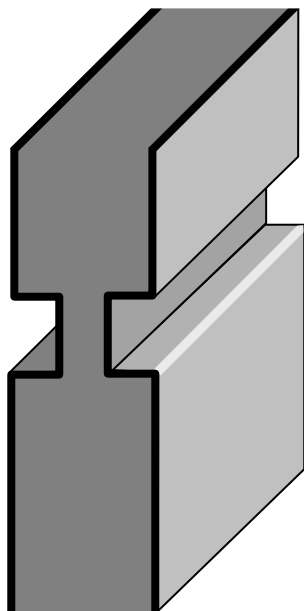
A

1-3/4" Door
7/16" X 5/8" Beveled Mouldings
1-1/2" Beveled Panel



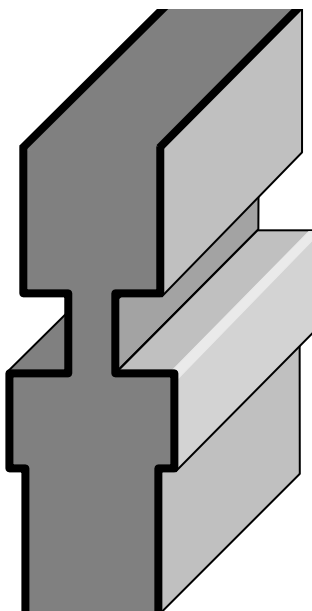
B

1-3/4" Door
3/4" X 1-1/4" Beveled Mouldings
1-1/2" Beveled Panel



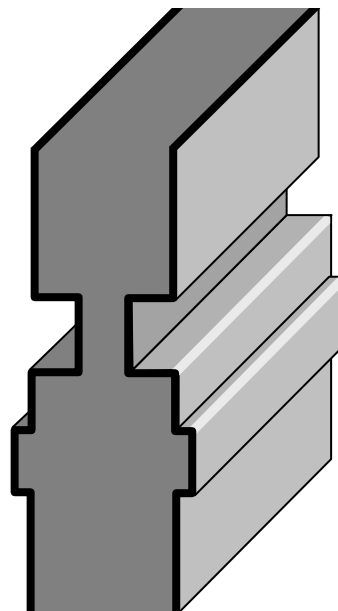
C

1-3/4" Door
1/2" X 5/8" Square Mouldings
1-1/2" Square Panel



D

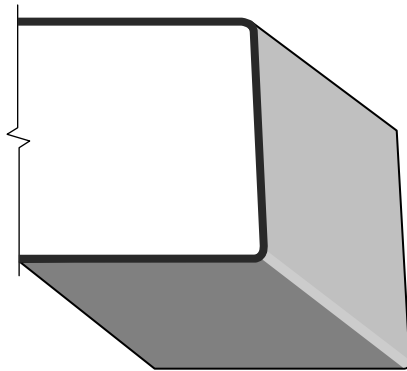
1-3/4" Door
3/4" X 1-1/4" Square Mouldings
1-1/2" Square Panel



E

1-3/4" Door
7/8" X 1-5/8" Square Mouldings
1-1/2" Square Panel

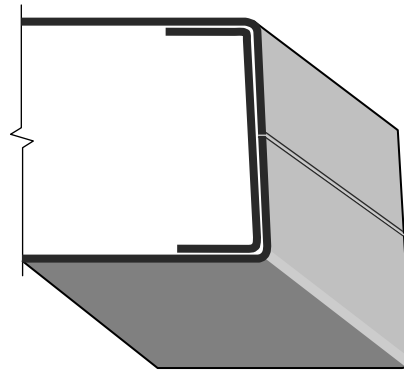
Stainless Steel Vertical Door Edge Options



A

Continuous Welded Seamless Edge

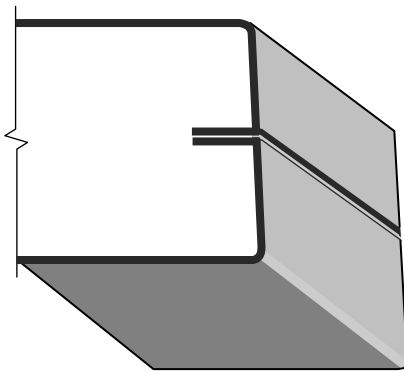
Continuous vertical weld, finished
smooth



B

Hairline Seam Edge

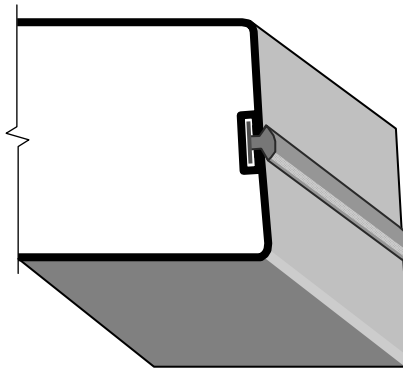
Center of door edge face



C

Open Seam Edge

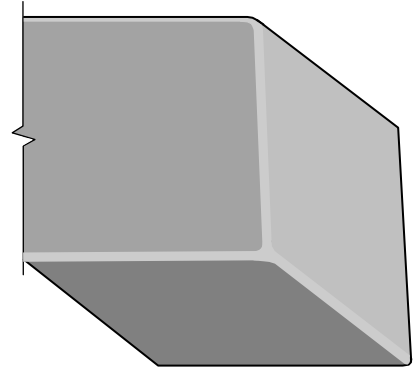
Center of door edge face



D

Air-Tek™ Edge Seal

Integral weather seal at door edge



E

Hermetically Sealed

Lab-Tek™ continuously welded
all 4 edges, including door top
and bottom

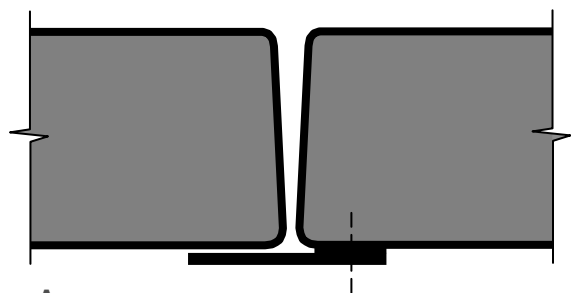


Bacteria
Resistant

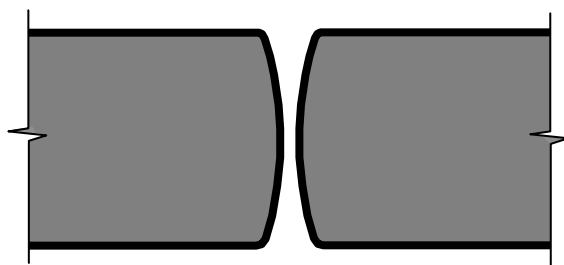


Vermin
Proof

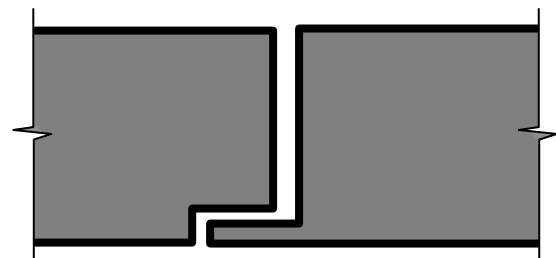
Stainless Steel Meeting Stiles & Astragals



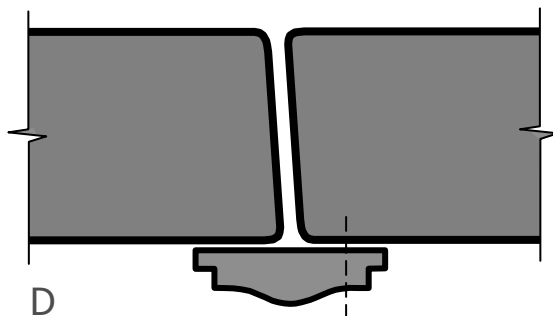
A
V-Bevel with Flat Astragal
With Applied Flat Astragal



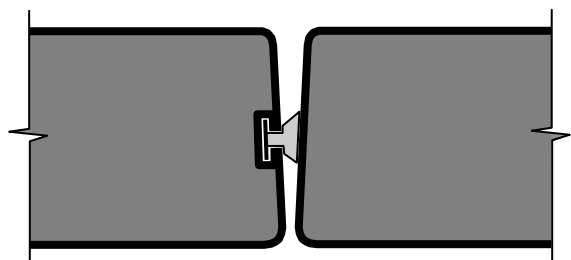
B
Bullnose
Used on Double-Acting and Center Pivoted Doors



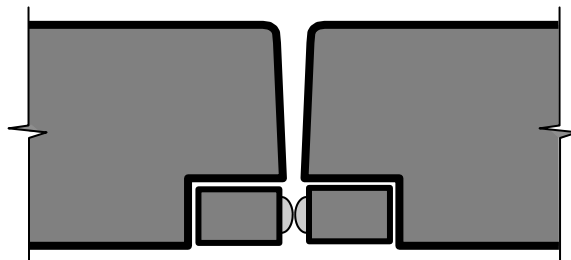
C
Rabbeted
May be used on Double-Egress Doors



D
Parallel Bevel
With Special Astragal

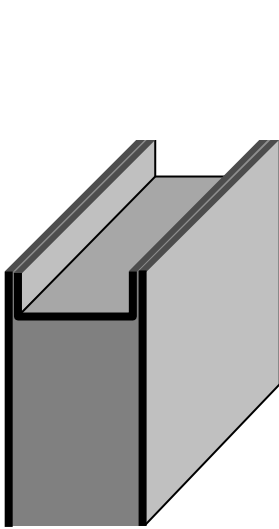


E
Integral Pile Seal
Stiles Proprietary Air-Tek™ Seal System for
Single Doors or Pairs

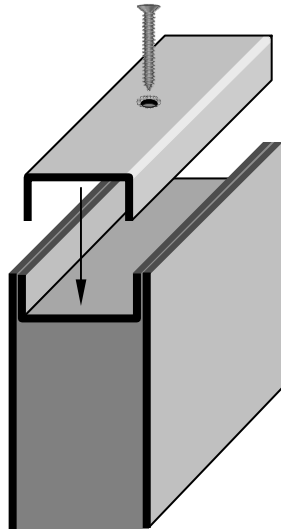


F
Recessed Adjustable Astragal
Surface-Mounted Type Also Available

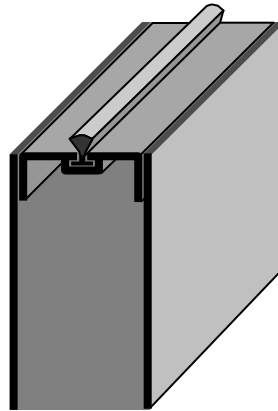
Door Top & Bottom Details



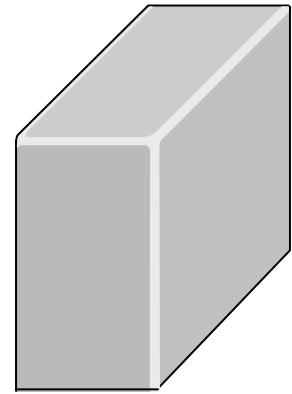
A
Standard Inverted
U-Channel



B
U-Channel Cap
**May be wet sealed to
eliminate water*



C
Air-Tek™
Integral cut pile weather
strip in door top and
active vertical door edge



D
Hermetically Sealed
Lab-Tek™ continuously welded
all 4 edges, including door top
and bottom
See [Lab-Tek Door p. D-1.4](#)



Waterproof

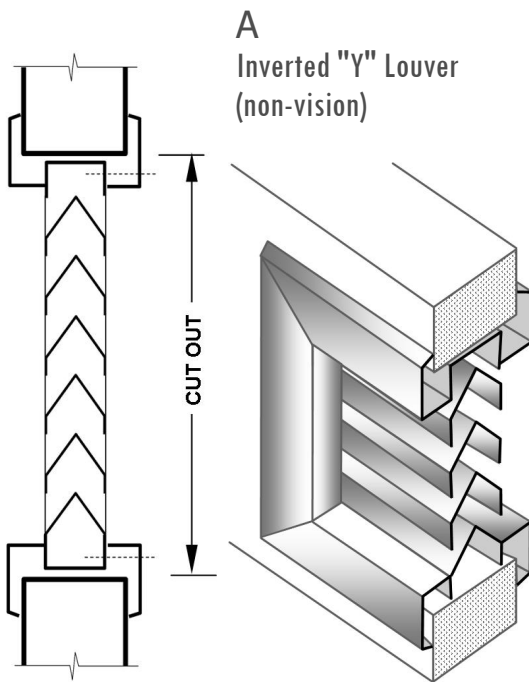


Bacteria
Resistant

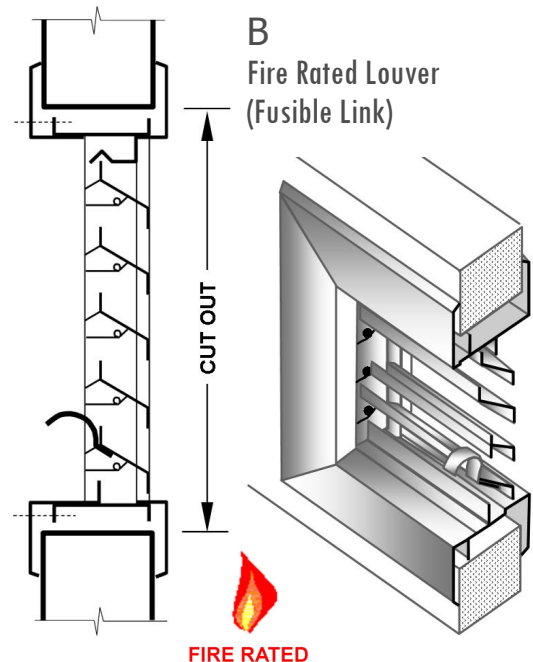


Vermin
Proof

Louvers



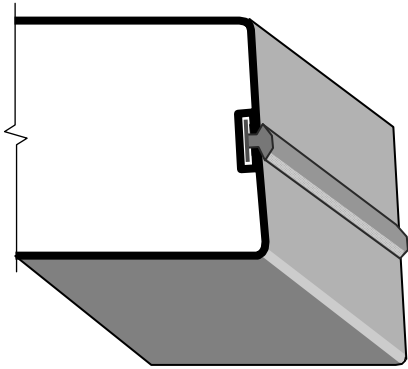
A
Inverted "Y" Louver
(non-vision)



B
Fire Rated Louver
(Fusible Link)

FIRE RATED

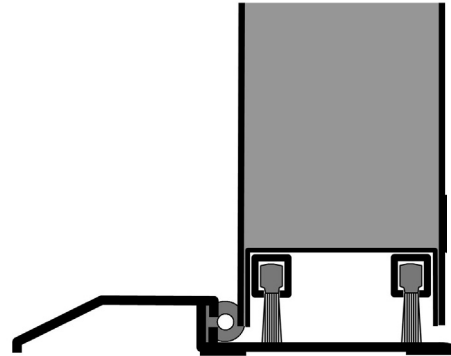
Stiles offers numerous options for weatherization designed to satisfy your specific project requirements, including:



A

Air-Tek™ Door Edge Seals

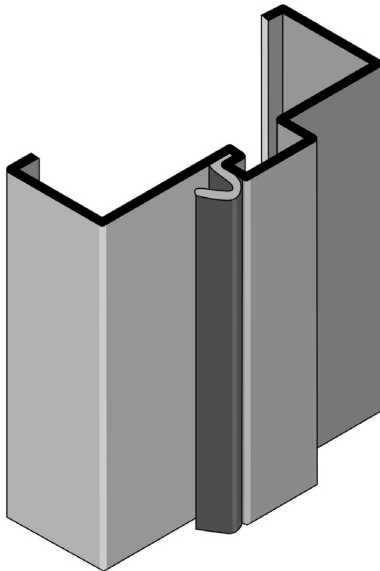
Stiles proprietary Air-Tek™ cut pile replaceable edge seals, available for both single doors and pairs, function as a primary dust and air barrier for active door edges and door tops.



B

Threshold Assemblies

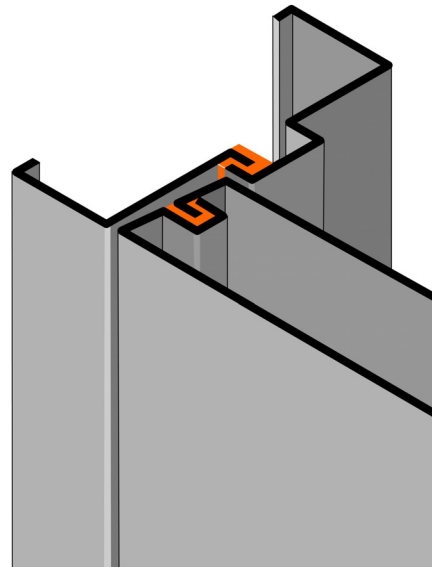
ADA compliant thresholds in all sizes, materials, functions and profiles, with replaceable seals. Dual door bottom sweeps in both brush and vinyl blade configurations, in addition to automatic door bottom seals.



C

Seal-Tek™ Weather Seal System

Stiles proprietary Seal-Tek™ frames are available with replaceable kerf weather seals that are UL10C listed and available in bronze, white, black, gray, and beige. *Seal is installed on the job after finish paint.

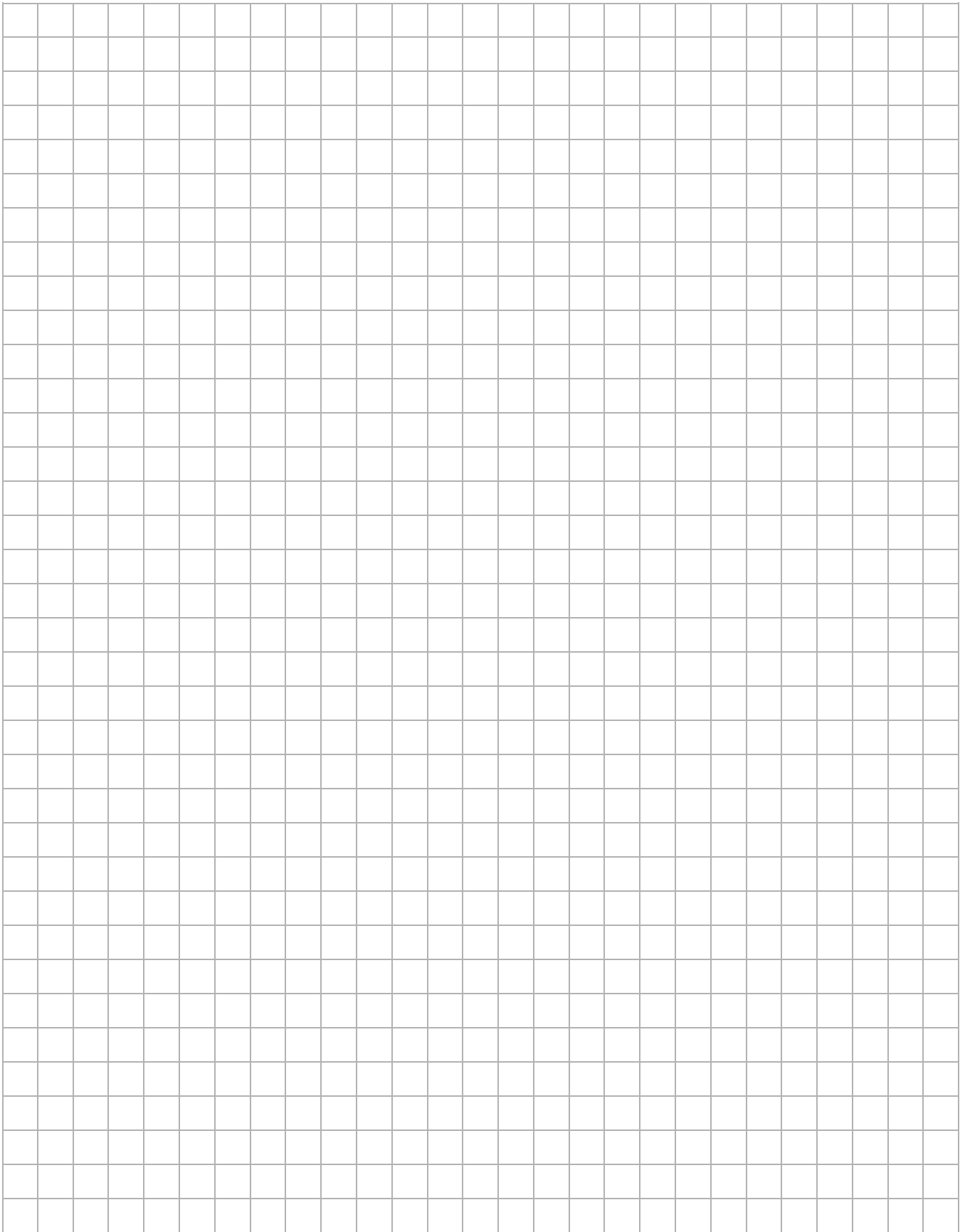


D

Thermal Breaks

Thermal breaks are available for both doors and frames for use in extreme environments, greatly reducing heat and cold transfer.

Notes



STAINLESS STEEL DOORS AND FRAMES

Section 08 1130

PART I GENERAL

1.01 SUMMARY

- A. Description: This section includes interior and exterior Stainless Steel Doors, Frames, and related Sidelites, Transoms, and Windows where applicable.
- B. Related work not included in this section:
 - 1. Finish hardware, including lock cylinders and thresholds.
 - 2. Glass and glazing.
 - 3. Caulking between frames and masonry.
 - 4. Structural members.

1.02 QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association
 - 2. ASTM, American Society for Testing and Materials
 - 3. ADA, Americans with Disabilities Act
 - 4. NAAMM / HMMA, National Association of Architectural Metals Manufacturers
- B. Quality is based on the products manufactured by Stiles Custom Metal, Inc. www.stilesdoor.com
- C. Manufacturer shall have been regularly engaged in manufacturing stainless steel doors and frames for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- D. Allowable Tolerances as stated in NAAMM / HMMA Technical Manual.

1.03 SUBMITTALS

- A. Shop drawings: Indicate in elevation with sections and details to scale. Include glass and metal thicknesses, joining details, field connections, anchorage, concealed and exposed fastening methods, door and framing reinforcement, and metal finishes. Indicate compliance with specified design criteria.
- B. Finish samples: Submit two (minimum 5" x 7") samples indicating texture to be expected of finished work.
- C. Maintenance data: Give instructions for general maintenance and repair of surfaces and finishes.

1.04 WARRANTY: Warrant Stainless Steel Doors, Frames, and Window assemblies against defects in materials and workmanship for (3) years from date of shipment when handled, stored, and installed in accordance with manufactures instructions and NAAMM / HMMA Technical Manual. Adjustments made necessary due to shifting or settling of building structure shall not be covered by warranty.

PART II PRODUCTS

2.01 DOORS:

- A. Acceptable Products: Stainless Steel Doors and Frames manufactured by Stiles Custom Metal, Inc.
- B. Stainless Steel Materials: (choose one) AISI Type [304], [316] or [430]
 - 1. Frames: (choose one) [0.060" 16 gauge] or [0.072" 14 gauge]
 - 2. Doors: (choose one) [0.060" 16 gauge] or [0.072" 14 gauge]
- C. Abraded Finish: (choose one) [#4 Satin], [#8 Polished], [Non-directional], [Angel-Hair], [Bead Blasted], [Random Swirl] *Consult factory for other finishes and embossing also available.
- D. Design of stile and rail profiles: As indicated on drawings. Door thickness: (choose one) [1-3/4"] or [2"]
Code may stipulate bottom rail height.
- E. Door Construction: Doors shall be unitized construction with continuous forms reinforcement stiffening channels welded into door body. Hardware reinforcement: Seven gauge at hinges, eleven gauge at lock/latch preparations welded into door body.
 - 1. Stile and rail doors shall be blanked-out from one sheet of metal. No welding shall be performed on door faces. Exposed seams on door faces or edges are not acceptable. Fabrication with bolt, screw or tie rod connections are not acceptable.
 - 2. Door edge construction: (choose one) [Stiles replaceable Air-Tek™ integral weather-strip], [Hairline seam], [Continuous Welded Seamless] Adhesive or screw-applied weather-strip shall not be accepted.
 - 3. Stainless Steel cladding over aluminum, steel or wood constructed shall not be accepted.

STAINLESS STEEL DOORS AND FRAMES (continued)

F. Glass Lite Kits: (choose one)

[Molding type lite kit with mitered corners welded, finished smooth and re-grained to match. Exterior side of door to be concealed welded. Interior side to include #8 oval head sheet metal screws].

[Internal channel type, flush glass moldings, securely welded to the inside face of the door skin. Removable glass channel stops shall be butted at corner joints, secured to the door with concealed, #8, sheet metal screws. Exposed fasteners shall not be accepted].

2.02 FRAMES

A. Construction:

1. Stainless Steel Materials: (choose one) AISI Type [304], [316] or [430]
2. Stainless Steel thickness: (choose one) [0.060" 16 gauge] or [0.072" 14 gauge]
3. Frames shall be welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header, mullion, and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings. All welds shall be finished smooth and regained to match.
4. Windows shall be provided with fixed and removable stops. Loose stops shall be channel type with butted corners and attached with countersunk, oval head, stainless steel sheet metal screws.

B. Fasteners shall be stainless steel. Exposed fasteners shall be countersunk and shall match framing.

C. Exterior door frames shall have Seal-Tek™ integral weather-strip at vertical jambs and head.

*See www.stilesdoor.com for details

2.03 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled, and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface-mounted, anchor hinges, or non-template mortised hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM / HMMA 830 and 861.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

- A. Deliver and store materials to prevent damaging and marring of finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful substances / surfaces and from careless handling, storage or machining.

3.03 INSTALLATION

- A. Framing systems shall be installed per Stiles instructions and NAAMM / HMMA 840. Install frames without use of exposed fasteners, except where indicated on shop drawings.
- B. Door Installation: Install doors and hardware in accordance with manufacturer's product data. Adjust hardware for proper operation. Adjust door closers for smooth operation throughout swing.

3.04 CLEANING: Clean doors and frames in accordance with manufacturer's special instructions.

3.05 MAINTENANCE: Instruct the Owner's Maintenance Personnel regarding the operation and maintenance of these doors.

End of Section

Lab-Tek™ STAINLESS STEEL DOORS AND FRAMES**Section 08 1130****PART I GENERAL****SUMMARY:**

- A. Description: This section includes interior and exterior Stainless Steel Doors, Frames, and related Sidelites, Transoms, and Windows designed for pharmaceutical, medical, hi-tech and other laboratory applications.
- B. Related work not included in this section:
 - 1. Finish hardware, including lock cylinders and thresholds.
 - 2. Glass and glazing.
 - 3. Caulking between frames and masonry.
 - 4. Structural members.

1.02 QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association
 - 2. ASTM, American Society for Testing and Materials
 - 3. ADA, Americans with Disabilities Act
 - 4. NAAMM / HMMA, National Association of Architectural Metals Manufacturers
- B. Quality is based on the products manufactured by Stiles Custom Metal, Inc. www.stilesdoor.com
- C. Manufacturer shall have been regularly engaged in manufacturing stainless steel doors and frames for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- D. Allowable Tolerances as stated in NAAMM / HMMA Technical Manual.

1.03 SUBMITTALS

- A. Shop drawings: Indicate in elevation with sections and details to scale. Include glass and metal thicknesses, joining details, field connections, anchorage, concealed and exposed fastening methods, door and framing reinforcement, and metal finishes. Indicate compliance with specified design criteria.
- B. Finish samples: Submit two (minimum 5" x 7") samples indicating texture to be expected of finished work.
- C. Maintenance data: Give instructions for general maintenance and repair of surfaces and finishes.

1.04 WARRANTY: Warrant Stainless Steel Lab-Tek™ Doors, Frames, and Window assemblies against defects in materials and workmanship for (3) years from date of shipment when handled, stored, and installed in accordance with manufactures instructions and NAAMM / HMMA Technical Manual. Adjustments made necessary due to shifting or settling of building structure shall not be covered by warranty.

PART II PRODUCTS**2.01 DOORS**

- A. The Stainless Steel Doors are based on Stiles Custom Metal, Inc. Model: Lab-Tek™ www.stilesdoor.com
- B. Stainless Steel Materials:
 - 1. Face sheets shall be 0.053 in. (16 gage) min. thickness Stainless Steel: (choose one) AISI Type [304], [316] or [430]
 - 2. All components shall be manufactured from the same alloy stainless steel as door skins.
 - 3. Abraded Finish: (choose one) [#4 Satin], [Non-directional], [Bead Blasted], *Consult factory for other finishes and embossing also available.
- C. Door Construction:
 - 1. Vertical Edges and Top and Bottom Edges: Door shall be built from two unitized face sheets with all four edges of the door folded and joined at center of vertical edges and top and bottom edges. Continuous reinforcing channels shall be welded inside all door edges. All seams shall be continuously welded with no visible seams on any surface of the door creating a completely smooth hermitically sealed door skin. Welds shall be finished smooth. Door thickness shall be 1-3/4".
 - 2. Door Core Options: (choose one) [Vertical steel stiffened] [Polyurethane] [Endura™ Impact Resistant] [Polystyrene]. Core and inside of door skins shall be completely covered with contact adhesive achieving 100% bond.
 - 3. Integral Astragal: Where required astragals shall be formed as an integral part of the doors skin with corresponding recessed area formed into adjacent door. Surface mounted flat plate or "Z" shaped astragals shall not be accepted.
 - 4. Hardware reinforcement: Hinges seven gauge, Lock/latch eleven gauge, welded into door body.

Lab-Tek™ STAINLESS STEEL DOORS AND FRAMES (continued)

5. Glass Lite Kits: (choose one)

[Structural Glazed]: Internal channel shall be formed with a recess permitting the glass to be structurally glazed completely flush with the face of the door using bacteria resistant structural silicon. There shall be no exposed fasteners.

[Flush Channel Glazed]: Door skin on clean room side shall be cut out to permit glass to be butted up to the end side surface. Glass shall be held in place on the side opposite clean room with removable glass channels or angle stops at the top and sides. Removable stop at the sill shall be either angle shaped or sloped channel. Removable stops shall be secured to the door with #8 stainless steel sheet metal screws. Glass shall be wet glazed using bacteria resistant structural silicon.

6. Door opening tag number shall be permanently engraved into the center hinge reinforcement using a programmable engraver. The engraving shall be deep enough to be read after the hinge reinforcement bar is painted. The use of paper stickers only is not acceptable.
7. Finish: After fabrication, all tool marks and surface imperfections shall be removed, and exposed faces of all welded joints shall be dressed smooth.

2.02 STEEL PANELS: Steel panels shall be made of the same material and construction and finished in the same way as specified for doors.

2.03 FRAMES

A. Construction:

1. Stainless Steel Materials: (choose one) AISI Type [304], [316] or [430]
2. Stainless Steel thickness: (choose one) [0.060" 16 gauge] or [0.072" 14 gauge]
3. Frames shall be continuous welded units of the sizes and types shown on approved shop drawings. Knocked-down frames shall not be accepted. Jamb, header, mullion, and sill profiles shall be in accordance with the frame schedule and as shown on the approved submittal drawings. All welds shall be finished smooth and regained to match.
4. Windows shall be provided with fixed and removable stops. Loose stops shall be channel type with butted corners and attached with countersunk, oval head, stainless steel sheet metal screws.

B. Fasteners shall be stainless steel. Exposed fasteners shall be countersunk and shall match framing.

C. Exterior door frames shall have Seal-Tek™ integral weather-strip at vertical jambs and head.

2.04 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled, and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface-mounted, anchor hinges, or non-template mortised hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM / HMMA 830 and 861.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

- A. Deliver and store materials to prevent damaging and marring of finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful substances / surfaces and from careless handling, storage or machining.

3.03 INSTALLATION

- A. Framing systems shall be installed per Stiles instructions and NAAMM / HMMA 840. Install frames without use of exposed fasteners, except where indicated on shop drawings.
- B. Door Installation: Install doors and hardware in accordance with manufacturer's product data. Adjust hardware for proper operation. Adjust door closers for smooth operation throughout swing.

3.04 CLEANING: Clean doors and frames in accordance with manufacturer's special instructions.

3.05 MAINTENANCE: Instruct the Owner's Maintenance Personnel regarding the operation and maintenance of these doors.

End of Section



Section Contents

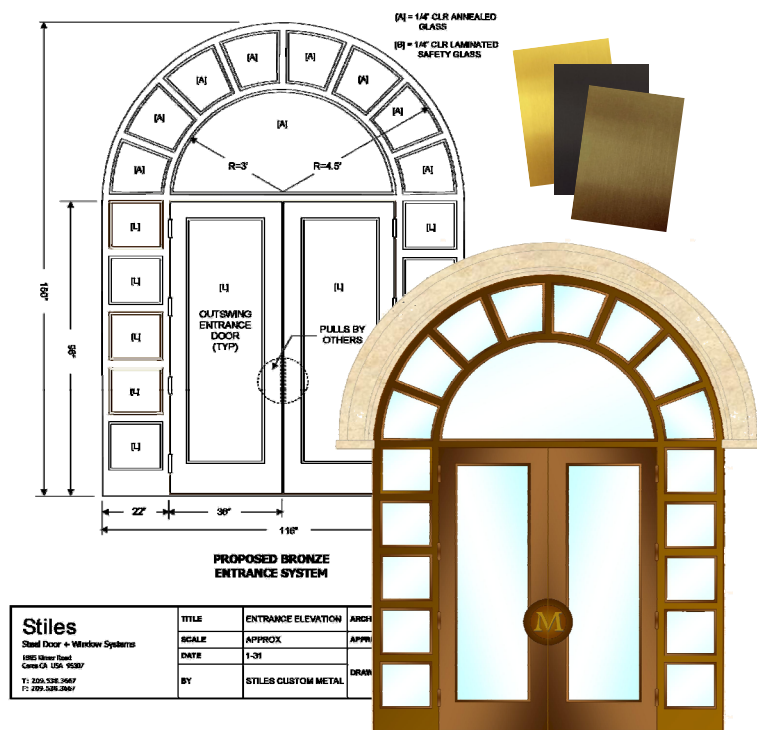
Introduction	BR-1.0
Bronze Finishes	BR-2.0
Patina Finishes	BR-3.0
Specifications	Appendix

Authentic Bronze Doors from Stiles...

Whether your project calls for historical replication or a creative new signature piece, we have the experience it takes to make your project a success. Bronze entrances make a statement of refinement and elegance like no other material. Our uncompromising attention to detail is reflected in every door we build.

- Commercial Entrance Systems
- Flush, Glass Lite and Solid Panel Configurations
- Constructed of Alloy 464 Bronze
- Custom designed to suit your requirements
- Sustainable materials and construction processes
- Abraded and Patina Finishes
- Multi features including: Bullet , Sound Control, Fire Rated

Built to Order.™



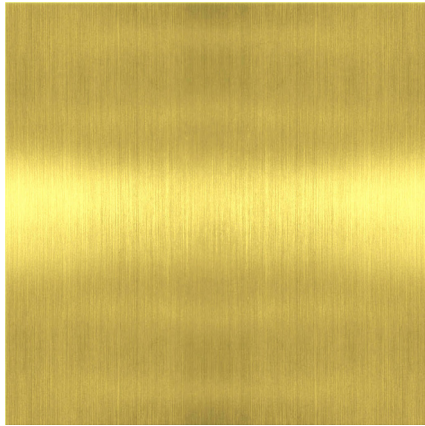
Authentic Bronze Doors from Stiles

When custom bronze doors and windows are required, you can count on Stiles for engineered high performance and outstanding visual appeal. Because Stiles Authentic Bronze Doors and Windows are built-to-order, unlimited opportunities exist for architects and designers to create signature-piece entrances. Features include:

- Entrance doors, frames, windows, storefront systems, and surrounds
- Historical replication or create new designs
- Alloy 464 Naval Brass construction
- A variety of finishes and factory-applied patinas
- Door elevations including flush, glass lite, raised panel and recessed panel
- Moulding options ranging from traditional to contemporary
- Proprietary multiple performance features such as fire rating and sound control

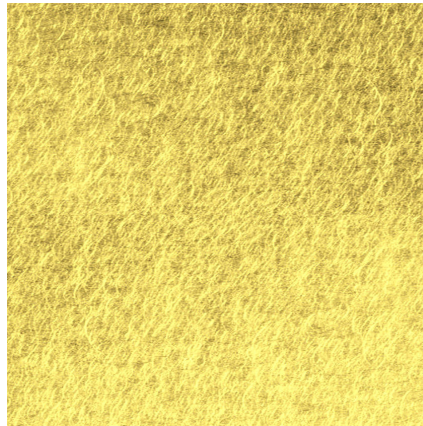
Bronze Abraded Finishes

(Shown on Alloy 464 Naval Brass)



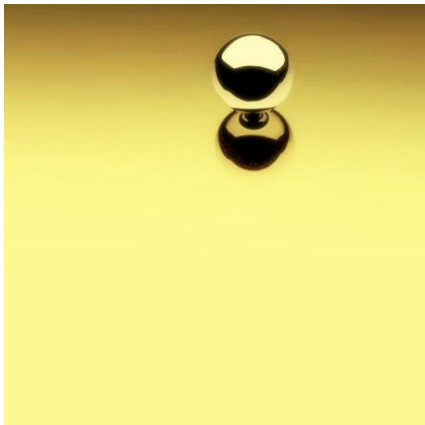
No. 4 Finish

A lightly grained surface produced by single-directional abrading. The most common bronze finish for architectural products.



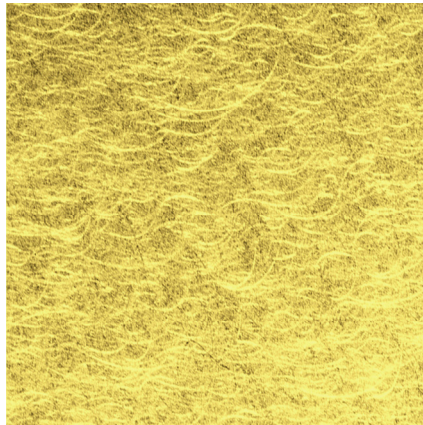
Non-Directional Finish

Produced by fine grit orbital sanding (non-directional) on mill finish bronze



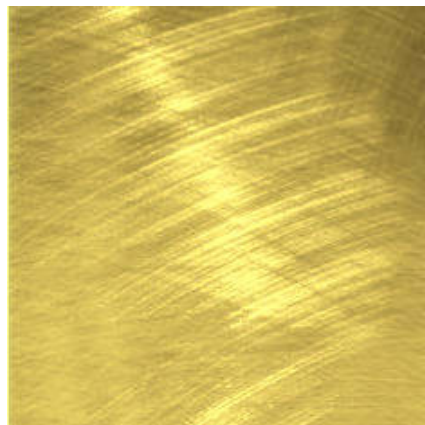
No. 8 Finish (Mirror Polished)

Obtained by polishing with successively finer abrasives, then buffing with a very fine compound.



Angel Hair Finish

Produced by medium-fine grit orbital sanding, non-directional.



Random Swirl Finish

Grained surface produced by random multi-directional abrading.

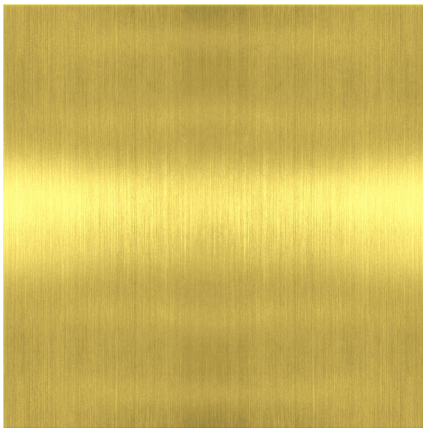
Clear Coat

An optional high-performance factory-applied clear coat is available in satin, semi-gloss, and high gloss sheens.

NOTE: Illustrations above may differ slightly from actual finishes. Finish samples will be provided for approval at time of order. Special finishes available - contact factory

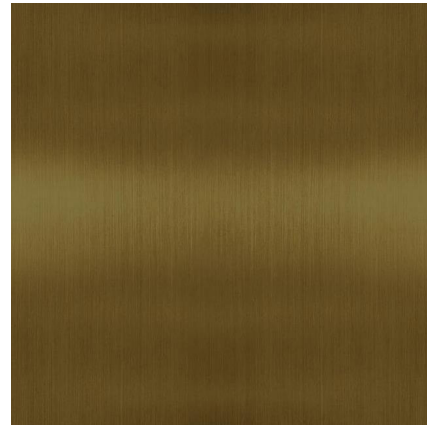
Patina Finishes

(Shown on Alloy 464 Naval Brass, #4)



Natural

The natural color of Alloy 464 Naval Brass; a bright golden hue.



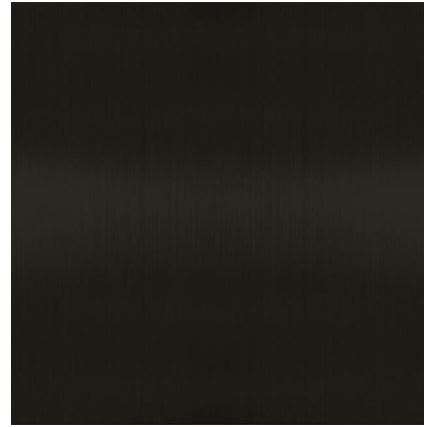
Medium Bronze

A rich medium brown with pronounced golden hues.



Oil Rubbed Bronze

A dark brown color with deep golden tones of varying intensities. Similar to US10B



Dark Statuary Bronze

A dark brown-black statuary color that varies slightly with the natural characteristics of the metal.

Important Facts About Stiles Patina Finishes

Patina finishes offer a natural color variation as opposed to paint or anodizing. The irregular patterns, color intensities and substrate metal all play a part in the ambience of a patina finish. In addition, each individual artist will produce a slightly different "application signature" to the piece. If you require a finish that is perfectly uniform in appearance, we suggest you specify a Tnemec or powder coated finish rather than a patina (metallic paints and powders available).

Clear Coat

An optional high-performance factory-applied clear coat is available in satin, semi-gloss, and high gloss sheens.

NOTE: Illustrations above may differ slightly from actual finishes. Finish samples will be provided for approval at time of order. Special finishes available - contact factory for more information.

Authentic™ BRONZE DOORS & FRAMES

Section 08 1140

PART I GENERAL

1.01 SUMMARY:

Description: Work includes Bronze Interior and Exterior Doors, Frames, and related Sidelites and Transoms where applicable.

Related work not included in this section:

1. Finish hardware including lock cylinders and thresholds.
2. Glass and glazing.
3. Caulking between frames and masonry.
4. Structural members.

1.02 QUALITY ASSURANCE:

- A. Applicable standards of the following as referenced herein:
 1. AAMA, American Architectural Manufacturers Association
 2. ASTM, American Society for Testing and Materials
 3. ADA, Americans with Disabilities Act
 4. CDA, Copper Development Association
 5. NAAMM / HMMA, National Association of Architectural Metals Manufacturers
- B. Quality is based on Authentic™ Bronze Doors and Frames manufactured by Stiles Custom Metal, Inc.
- C. Manufacturer shall have been regularly engaged in manufacturing bronze doors and frames for a period of ten years. Doors and Frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- D. Allowable Tolerances as stated in NAAMM / HMMA Technical Manual.

1.03 SUBMITTALS:

- A. Shop drawings: Indicate in elevation with sections and details to scale. Include glass and metal thicknesses, joining details, field connections, anchorage, concealed and exposed fastening methods, door and framing reinforcement, and metal finishes. Indicate compliance with specified design criteria.
- B. Visual samples: Submit two (minimum 5" x 7") samples indicating texture and color to be expected in finished work.
- C. Maintenance data: Give instructions for general maintenance and repair of surfaces and finishes.

1.04 WARRANTY: Warrant Authentic™ Bronze Doors, Frames, and Window assemblies against defects in materials and workmanship for three (3) years beginning thirty days after shipment when handled, stored, and installed in accordance with manufactures instruction and NAAMM / HMMA Technical Manual. Adjustments occurring as a result of shifting or settling of building structure shall not be covered by warranty. Clear coat manufacturers warranty applies.

PART II PRODUCTS

2.01 DOORS:

- A. Acceptable products: Authentic™ Bronze Doors & Frames manufactured by Stiles Custom Metal, Inc.,
- B. Bronze Materials: CDA Alloy 464 Naval Brass, Doors minimum 0.06" thick.
- C. Finish: (Make Selections) *See www.stilesdoors.com for details
 1. Abraded Finish: (choose one) [#4 Satin], [#8 Polished], [Non-Directional], [Angel Hair], [Random Swirl]
 2. Color: (choose one) [Natural], [Medium Bronze], [Oil-Rubbed Bronze], [Dark Statuary Bronze]
 3. Clear Protective Lacquer Coating: (choose one) [No Clear Coat], [Satin], [Semi-Gloss], [High-Gloss]
- D. Fasteners: Bronze fasteners associated with door construction shall be concealed type.
- E. Design of stile and rail profiles: As indicated on drawings. Door thickness (choose one) [1-3/4"] or [2"]
Code may stipulate bottom rail height.

Authentic™ BRONZE DOORS AND FRAMES (continued)

- F. Door Construction: Doors shall be unitized construction with continuous forms reinforcement stiffening channels welded into door body. Three metal thicknesses, welded into door body, shall be required for all hardware reinforcement.
1. Stile and rail doors shall be blanked-out from one sheet of metal. No welding shall be performed on door faces. Exposed seams on door faces shall not be acceptable. Assembly with bolts, screws, or tie-rod connections shall not be acceptable.
 2. Doors shall have high impact resistant polyurethane core.
 3. Door edge construction: (choose one) [Stiles replaceable Air-Tek™ integral weather-strip], [Continuous Welded Seamless], [Hairline seam] *See www.stilesdoors.com for details. Adhesive or screw-applied weather-strip shall not be acceptable.
 4. Cladding over aluminum, steel, or wood construction shall not be acceptable.
- G. Glass Lite Kits: (choose one)
- [Molding type Lite Kit: Shall be mitered and welded type corners, finished smooth and re-grained to match. Molding on exterior side of door shall be permanently attached. Interior removable molding shall be attached with #8 oval head sheet metal screws of matching material.]
- [Internal Channel Type Flush Glass Moldings: Shall be securely welded to the inside of the door skin. Removable glass channel stops shall be butted at corner joints, secured to door with concealed #8 sheet metal screws. Exposed fasteners shall not be accepted.]

2.02 FRAMES:

- A. Construction:
1. Material shall be minimum 0.08" thick with the same texture and finish as doors.
 2. Fabricate components in accordance with approved shop drawings. Frames shall be fully welded construction with welds ground smooth and blended to be indistinguishable in finished work. Finish shall match entrance doors.
- B. Exposed fasteners shall be countersunk and shall match framing color.
- C. Exterior Door frames shall have Stiles Seal-Tek™ integral weather-strip at vertical jambs and head. Adhesive applied weather-strip shall not be acceptable.
- D. Hardware: Manufacturer shall prepare and reinforce for mortised templated hardware per manufacturer's templates and in accordance with NAAMM / HMMA.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

- A. Deliver and store materials to prevent damaging and marring to finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful substances / surfaces and from careless handling, storage or machining.

3.03 INSTALLATION

- A. Framing systems shall be installed per Stiles instructions and NAAMM / HMMA 840. Install frames without use of exposed fasteners, except where indicated on shop drawings.
- B. Door Installation: Install doors and hardware in accordance with manufacturer's product data. Adjust hardware for proper operation.

3.04 CLEANING: Clean doors and frames in accordance with manufacturer's special instructions.

3.05 MAINTENANCE: Instruct the Owner's Maintenance Personnel regarding the operation and maintenance of these doors.

End of Section

Bronze Clad Steel Doors and Frames

Section 08 1140

PART I GENERAL

1.01 SUMMARY

- A. Description: Work includes Bronze Clad Interior and Exterior Steel Doors, Frames, and related Sidelites, and Transoms where applicable.
- B. Related work not included in this section:
 - 1. Finish hardware including lock cylinders and thresholds.
 - 2. Glass and glazing.
 - 3. Caulking between frames and masonry.
 - 4. Structural members.

QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association
 - 2. ASTM, American Society for Testing and Materials
 - 3. ADA, Americans with Disabilities Act
 - 4. CDA, Copper Development Association
 - 5. NAAMM / HMMA, National Association of Architectural Metals Manufacturers
- B. Quality is based on Bronze Clad Steel Doors and Frames manufactured by Stiles Custom Metal, Inc.
www.stilesdoor.com
- C. Manufacturer shall have been regularly engaged in manufacturing bronze doors and frames for a period of ten years. Doors and frames shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- D. Allowable Tolerances as stated in NAAMM / HMMA Technical Manual.

1.03 SUBMITTALS

- A. Shop drawings: Indicate in elevation with sections and details to scale. Include glass and metal thicknesses, joining details, field connections, anchorage, concealed and exposed fastening methods, door and framing reinforcement, and metal finishes. Indicate compliance with specified design criteria.
- B. Finish samples: Submit two (minimum 5" x 7") samples indicating texture and color and to be expected in finished work.
- C. Maintenance data: Give instructions for general maintenance and repair of surfaces and finishes.

- 1.04 WARRANTY:** Warrant Bronze Clad Steel Doors, Frames, and Window assemblies against defects in materials and workmanship for three (3) years, beginning thirty days after shipment when handled, stored, and installed in accordance with manufacturer's instructions and NAAMM / HMMA Technical Manual. Adjustments made necessary due to shifting or settling of building structure shall not be covered by warranty. Clear coat manufacturers warranty applies.

PART II PRODUCTS

2.01 DOORS

- A. Acceptable products: Bronze Clad Steel Doors & Frames manufactured by Stiles Custom Metal, Inc.
- B. Bronze Cladding Material: CDA Alloy 464 Naval Brass, minimum 0.045" thick.
- C. Finish: (Make Selections) *See www.stilesdoors.com for details
 - 1. Abraded Finish: (choose one) [#4 Satin], [#8 Polished], [Non-Directional], [Angel Hair], [Random Swirl]
 - 2. Color: (choose one) [Natural], [Medium Bronze], [Oil-Rubbed Bronze], [Dark Statuary Bronze]
 - 3. Clear Protective Lacquer Coating: (choose one) [No clear coat] [Satin], [Semi-Gloss], [High-Gloss]
- D. Design of stile and rail profiles: As indicated on drawings. Door thickness: (choose one): [1-3/4"] or [2"]
- E. Code may stipulate bottom rail height.

BRONZE CLAD STEEL DOORS AND FRAMES (continued)

F. Door Construction:

1. Base steel doors minimum 0.056" thickness and shall be unitized construction with continuous forms reinforcement stiffening channels welded into door body consistent with Stiles steel door construction. Assembly with bolts, screws, or tie rod connections shall not be acceptable.
2. Bronze Cladding: Minimum 0.045" thick. Cladding shall be blanked-out from one sheet of metal. No welding shall be permitted. Exposed seams on door faces are not acceptable. Prior to cladding, base door shall have a permanent coating applied which will prevent galvanic reaction. Cladding shall be applied to door with a tested, permanent, lifetime compression adhesive.
3. Door edge construction: (choose one) [Stiles replaceable Air-Tek™ integral weather-strip], [Hairline Seam] Adhesive or screw-applied weather strip shall not be accepted.
4. Bronze cladding over aluminum or wood construction shall not be accepted.

G. Glass Lite Kits: (choose one)

[Molding type lite kit with mitered corners welded, finished smooth and re-grained to match. Molding on exterior side of door to be permanently attached. Interior removable molding shall be attached with #8 oval head sheet metal screws of matching material].

[Internal channel type, flush glass moldings, securely welded to the inside face of the door skin. Removable glass channel stops shall be butted at corner joints, secured to the door with concealed, #8, sheet metal screws. Exposed fasteners shall not be accepted].

2.02 FRAMES

A. Construction:

1. Material shall be minimum 0.08" thick with the same texture and finish as doors.
2. Fabricate components in accordance with approved shop drawings. Frames shall be fully welded construction with welds ground smooth and blended to be indistinguishable from finished work. Finish shall match doors.

B. Exposed fasteners shall be countersunk and shall have finish to match framing color.

C. Exterior Door frames shall have Stiles replaceable Seal-Tek™ integral weather-strip at vertical jambs and head. Adhesive applied weather-strip shall not be accepted.

D. Hardware: Manufacturer shall prepare and reinforce for mortised templated hardware per manufacturers templates and in accordance with NAAMM / HMMA.

PART III EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

- A. Deliver and store materials to prevent damaging and marring of finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful substances / surfaces, and from careless handling, storage or machining.

3.03 INSTALLATION

- A. Framing systems shall be installed per Stiles instructions and NAAMM / HMMA 840. Install frames without use of exposed fasteners, except where indicated on shop drawings.
- B. Door Installation: Install doors and hardware in accordance with manufacturer's product data. Adjust hardware for proper operation.

3.04 CLEANING: Clean doors and frames in accordance with manufacturer's special instructions.

3.05 MAINTENANCE: Instruct the Owner's Maintenance Personnel regarding the operation and maintenance of these doors.

End of Section



Bullet Resistant Doors, Windows & Storefront Systems

Ballistica™ steel doors, windows and storefront systems are available in a wide variety of options to suit both your aesthetic and security requirements. Stiles provides a broader spectrum of protection options than anyone else in the industry.

- Full range of UL752 options
- Bullet Resistant Commercial Entrance Systems
- Flush, Glass Lite and Solid Panel Configurations
- Steel, Stainless or Bronze
- Custom designed to suit your requirements
- Sustainable materials and construction processes

Multiple features including:

- Sound Control
- Fire Rated



Section Contents

UL752 Ballistic Standards	BR-1.0
Ballistica™ Basic Options	BR-1.1
Door Models (by UL 752 Level)	BR-2.0
Doors	BR-2.1 to 2.8
Door Construction Options	BR-3.0
Sampling of Available Elevations	BR-4.0
Window Models (by UL 752 Level)	BR-5.0
Windows	BR-5.1 to 5.8
Transaction Windows & Accessories	BR-6.0
Glazing	BR-7.0
Quick Ship	BR-8.0
Specifications	Appendix






















Environmental Data

Stiles uses no lead, asbestos or formaldehyde in the construction of our bullet resistant doors or windows.

All resins and bonding agents utilized in fabrication are low VOC / environmentally friendly. Stock sheet materials are ordered to make provision for minimal waste.

The recyclability and superior longevity of Ballistica™ doors and windows make them truly sustainable products.

UNDERWRITERS LABORATORY UL 752 BALLISTIC STANDARDS

UL Level	Weapon	Ammunition	Shots	UL 752 Test Criteria (per UL 752 rev.10-5-05)
1	 Baretta 9mm ParabeUum	 9mm, 124 grain FMJ	3	Target Range 12" X 12" 15 Feet Velocity 1175 to 1292.5 ft/sec. Shot Spacing 3 shots within 4.5" triangle Witness Plate .125 cardboard @ 18" from target Test Temp (-26/72) 55, 72, 95, 120F
2	 .Smith & Wesson .357 Magnum	 .357 Magnum, 158 grain JSP	3	Target Range 12" X 12" 15 Feet Velocity 1250 to 1375 ft/sec. Shot Spacing 3 shots within 4.5" triangle Witness Plate .125 cardboard @ 18" from target Test Temp (-26/72) 55, 72, 95, 120F
3	 Colt .44 Magnum	 .44 Magnum, 240 grain SWC	3	Target Range 12" X 12" 15 Feet Velocity 1350 to 1485 ft/sec. Shot Spacing 3 shots within 4.5" triangle Witness Plate .125 cardboard @ 18" from target Test Temp (-26/72) 55, 72, 95, 120F
4	 M-1 Garand 30-06, .30 Caliber	 .30 cal, 30-06, 180 grain JSP	1	Target Range 12" X 12" 15 Feet Velocity 2540 to 2794 ft/sec. Shot Spacing 1 shot, centered Witness Plate .125 cardboard @ 18" from target Test Temp (-26/72) 55, 72, 95, 120F
5	 Heckler & Koch Model G3 7.62 X 51 NATO	 .30 cal, 7.62 NATO, 150 grain FMJ	1	Target Range 12" X 12" 15 Feet Velocity 2750 to 3025 ft/se Shot Spacing (Parts 1-3) 1 shot, centered Witness Plate .125 cardboard @ 18" from target Test Temp (-26/72) 55, 72, 95, 120F
6	 Baretta 9mm ParabeUum	 9mm, 124 grain FMJ	5	Target Range 12" X 12" 15 Feet Velocity 1400 to 1540 ft/sec. Shot Spacing 5 shots within a 4.5" square Witness Plate .125 cardboard @ 18" from target Test Temp 72F
7	 Colt M16 (AR15 Semi), 5.56 X 45 NATO	 .223 cal, 5.56 NATO, 55 grain FMJ	5	Target Range 12" X 12" 15 Feet Velocity 3080 to 3388 ft/sec. Shot Spacing 5 shots within a 4.5" square Witness Plate .125 cardboard @ 18" from target Test Temp 72F
8	 Heckler & Koch Model G3 7.62 X 51 NATO	 .30 cal, 7.62 NATO, 150 grain FMJ	5	Target Range 12" X 12" 15 Feet Velocity 2750 to 3025 ft/sec. Shot Spacing 5 shots within a 4.5" square Witness Plate .125 cardboard @ 18" from target Test Temp 72F
SHOTGUN SUPPLEMENT				
SG 1-8	 Benelli 12GA Shotgun	 12GA, 2.75" 437 grain Slug	5	Target Range 12" X 12" 15 Feet Velocity (Levels 1-8) 1585 to 1743.5 ft/sec. Shot Spacing (Levels 1-3 A-C) Total 3 shots within a 4.5" triangle (Levels 4-5, Parts 1A-B) 1 shot, centered (Levels 6-8, Part 1) 5 shots within a 4.5" square Witness Plate .125 cardboard @ 18" from target Test Temp (-26/72) 55, 72, 95, 120F (varies per level / part)
		 12GA, 2.75" 650 grain #00 Buck		Target Range 12" X 12" 15 Feet Velocity (1-8) 1200 to 1320 ft/sec. Shot Spacing (Levels 1-3 2A-C) Total 3 shots within a 4.5" triangle (Levels 4-5, Parts 2A-B) 1 shot, centered (Levels 6-8, Part 2) 5 shots within a 4.5" square Witness Plate .125 cardboard @ 18" from target Test Temp (-26/72) 55, 72, 95, 120F (varies per level / part)

Ballistica™ bullet and ricochet resistant steel doors, frames, windows, and storefront systems are built to order to provide the highest protection while retaining the aesthetic appearance of non-bullet resistant products.

In addition to options shown below, features such as sound control and fire-rating are available on many Ballistica™ door and window models.

Materials Options



Steel

Stainless Steel

Bronze

More Information:

Steel: Prime Painted

Stainless Steel: See [Stainless Section](#)

Bronze: See [Bronze Section](#)

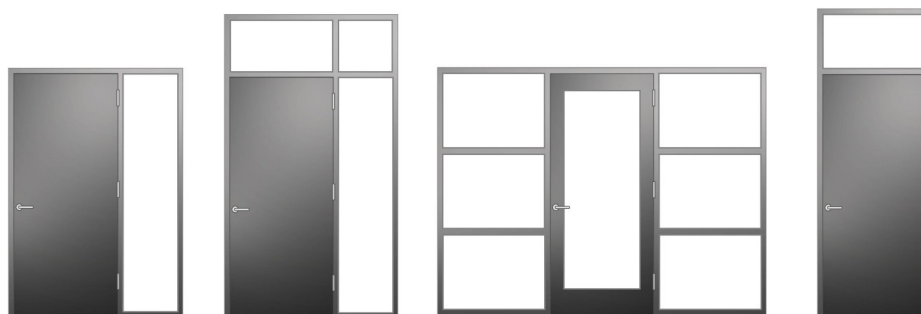
Glass Lite Options



Doors are available in a wide variety of elevation and lite kit options ranging from flush to full lite:

See [p. BR-4.0 Sampling of Available Elevations](#)











Frame Profile & Configuration Options



Choose from multiple frame profiles and configurations designed to accommodate virtually any wall construction and elevation requirement:

See [Frames Section](#)

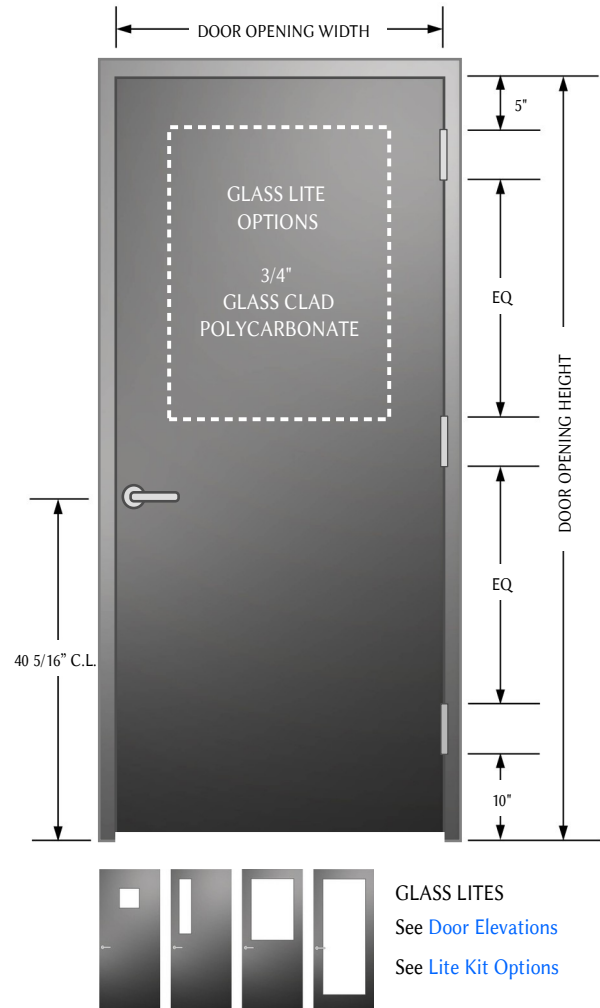
Ballistica™ bullet and ricochet resistant steel door assemblies are built to order and independently tested to meet UL 752 protection requirements. Glass lite door models are available factory glazed with level-appropriate UL 752 certified glazing material.

UL 752 Level	Ammunition	Ballistica™ Bullet Resistant Door Models				Glass	Page
		Steel	Stainless Steel	Bronze			
1		BSD-1	BSSD-1	BBD-1		3/4" GCP	BR-2.1
	9mm, 124 grain FMJ						
2		BSD-2	BSSD-2	BBD-2		15/16" GCP	BR-2.2
	.357 Magnum, 158 grain JSP						
3		BSD-3	BSSD-3	BBD-3		1-1/8" GCP	BR-2.3
	.44 Magnum, 240 grain SWC						
4		BSD-4	BSSD-4	BBD-4		1-1/4" GCP	BR-2.4
	.30 cal, 30-06, 180 grain JSP						
5		BSD-5	BSSD-5	BBD-5		1-5/16" GCP	BR-2.5
	.30 cal, 7.62 NATO, 150 grain FMJ						
6		BSD-6	BSSD-6	BBD-6		1-1/4" GCP	BR-2.6
	9mm, 124 grain FMJ						
7		BSD-7	BSSD-7	BBD-7		1-7/8" GCP	BR-2.7
	.223 cal, 5.56 NATO, 55 grain FMJ						
8		BSD-8	BSSD-8	BBD-8		2" GCP	BR-2.8
	.30 cal, 7.62 NATO, 150 grain FMJ						
SGS	 	Shotgun Supplement Available All Levels - Contact Factory				Varies per Level	

Level 1

Model BSD-1 / Bullet & Ricochet Resistant Door Assembly

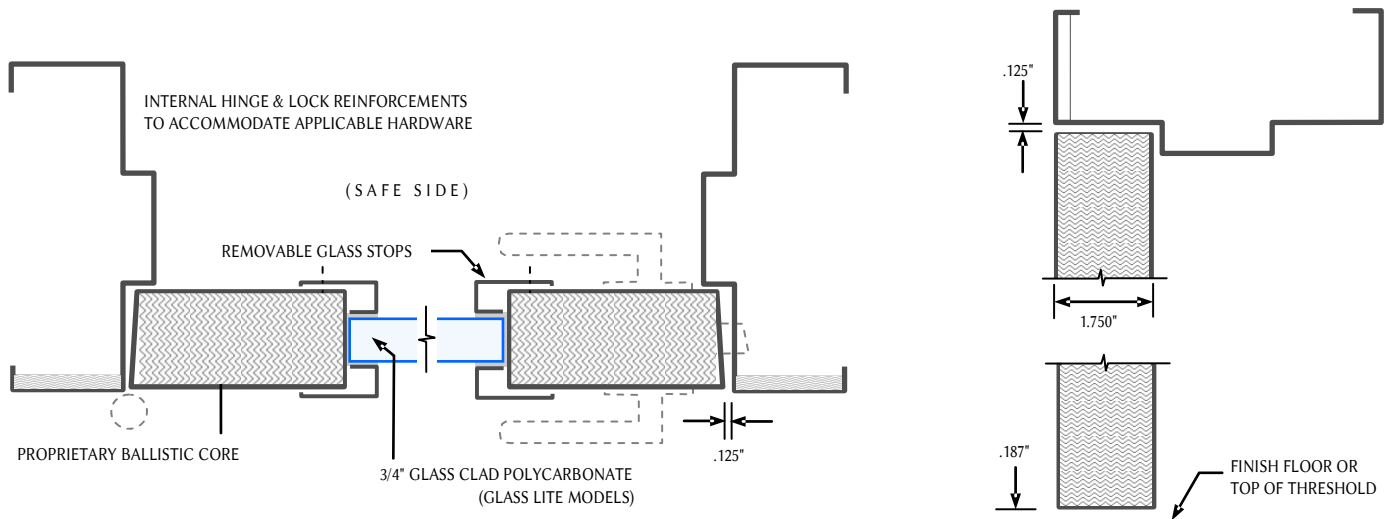
Assembly	Ballistica™ built-to-order bullet resistant door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze , Wood
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	9.4 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 3/4" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	Hardware is not by Stiles.
Frames	See Frame Profiles and Frame Elevations
Primer	RPG Primer Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 1 Test Criteria

Independently tested in accordance with UL 752 requirements

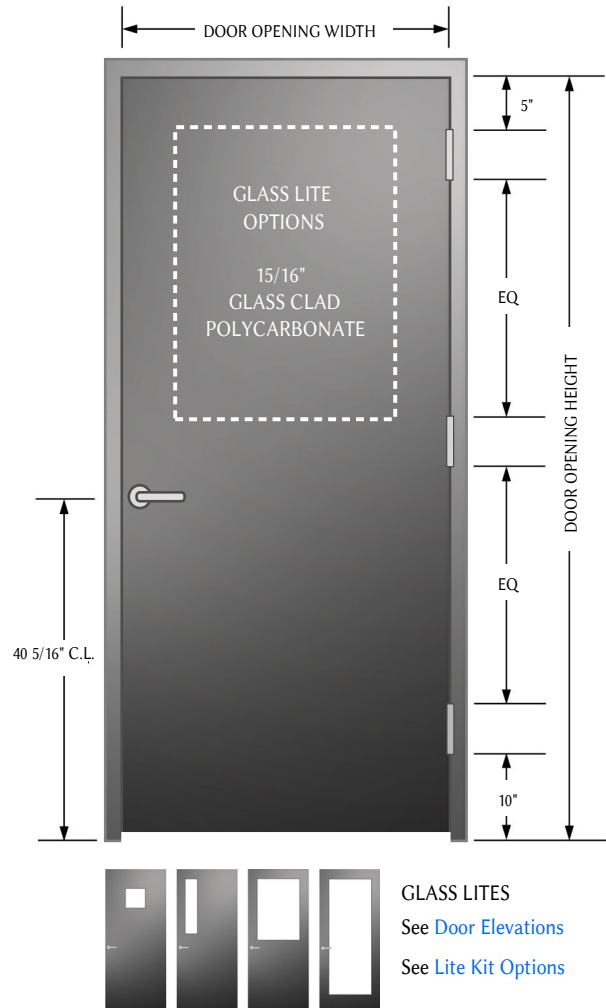
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Baretta 9mm Parabellum	9mm, 124 gr. FMJ	3	1,175 to 1,292	3 shots, 4.5" triangle	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 2

Model BSD-2 / Bullet & Ricochet Resistant Door Assembly

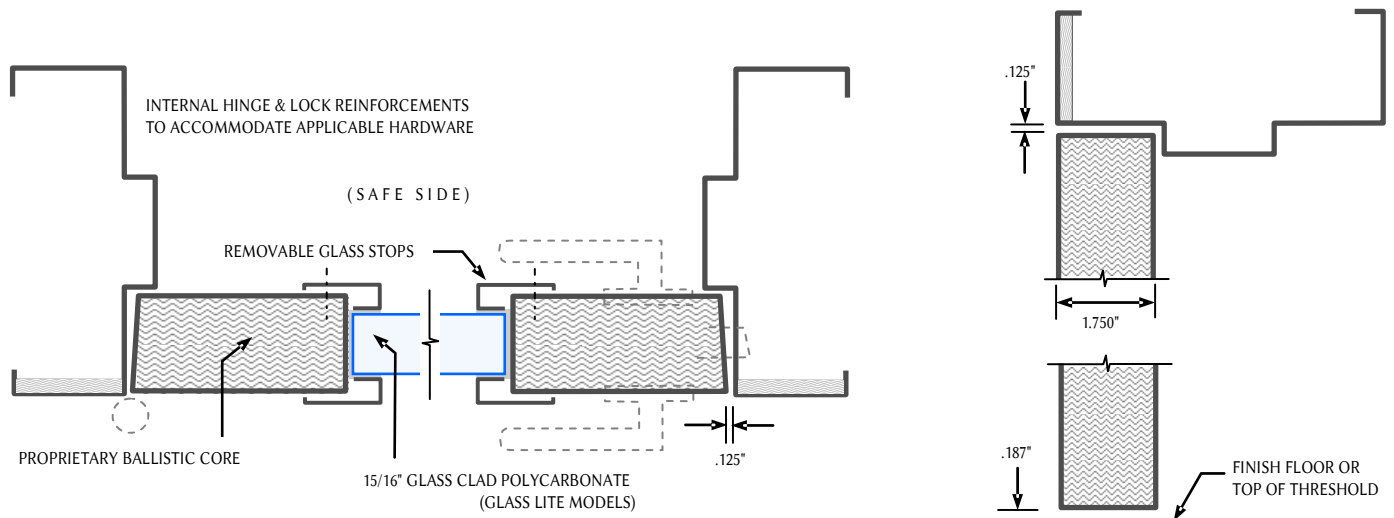
Assembly	Ballistica™ built-to-order bullet resistant door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	9.4 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 15/16" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard 3. Factory installed glazing option insures optimal performance
Hardware	Hardware is not by Stiles
Frames	See Frame Profiles and Frame Elevations
Primer	PPG Primer, Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 2 Test Criteria

Independently tested in accordance with UL 752 requirements

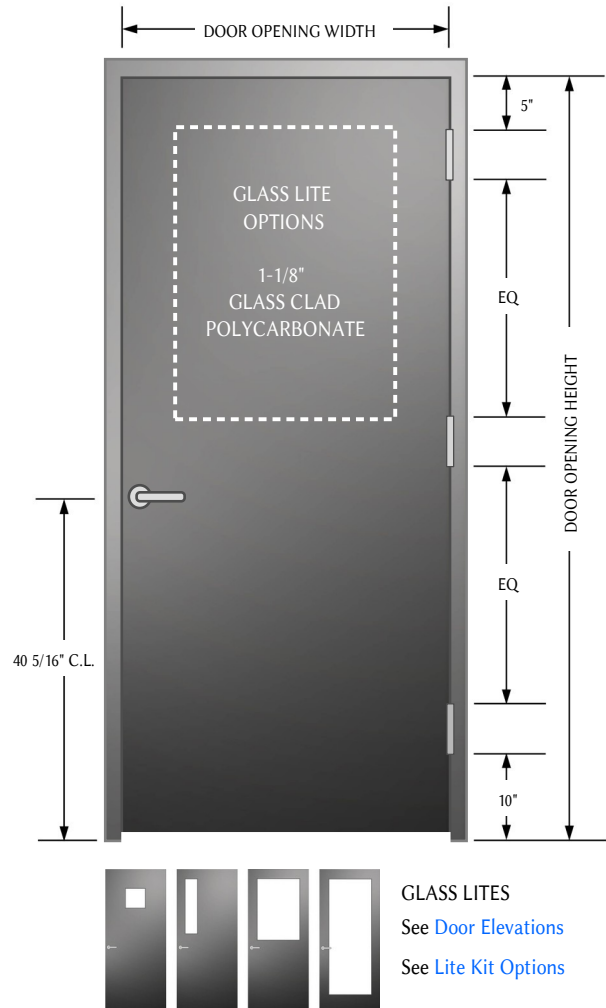
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
S&W .357 Magnum	.357 Mag, 158 gr. JSP	3	1,250 to 1,375	3 shots, 4.5" triangle	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 3

Model BSD-3 / Bullet & Ricochet Resistant Door Assembly

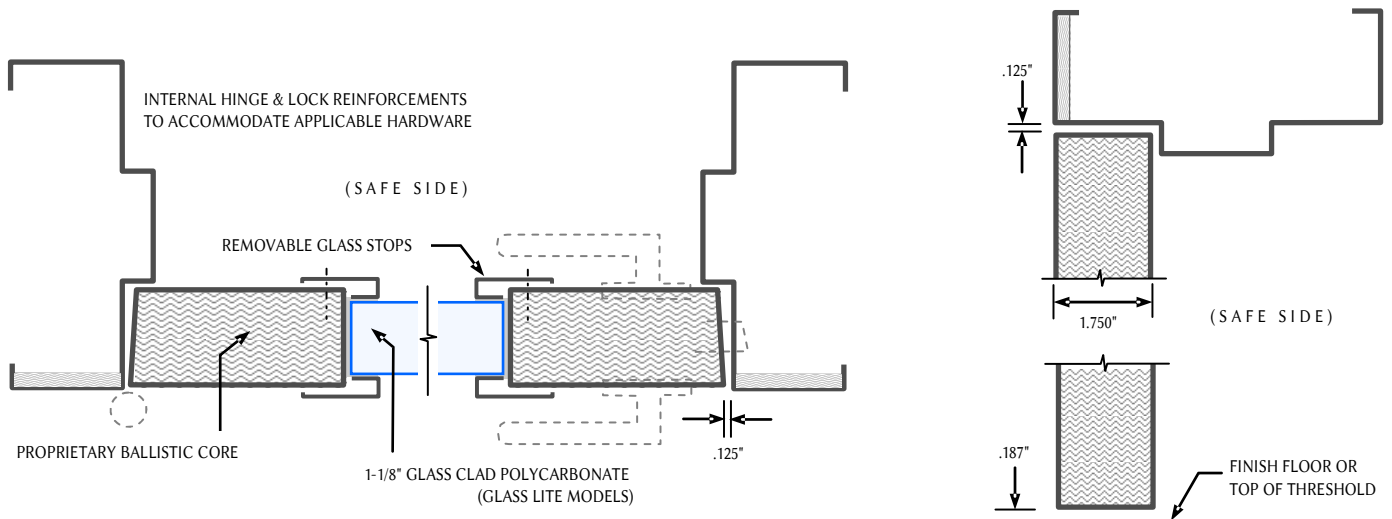
Assembly	Ballistica™ built-to-order bullet resistant door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	12.3 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 1-1/8" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard
Hardware	Hardware is not by Stiles
Frames	See Frame Profiles and Frame Elevations
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 3 Test Criteria

Independently tested in accordance with UL 752 requirements

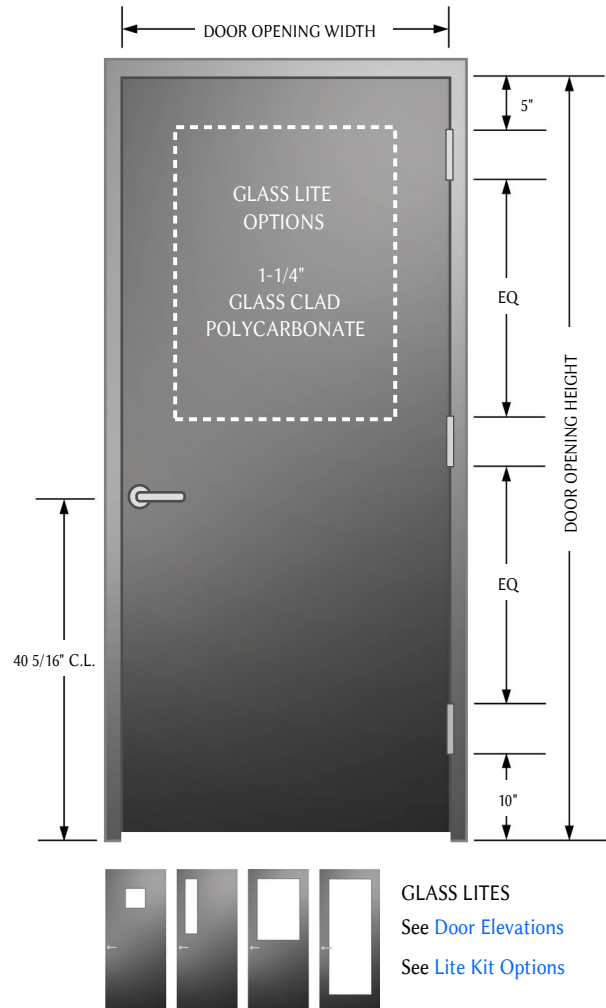
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Colt .44 Magnum	.44 Mag, 240 gr. SWC	3	1,350 to 1,485	3 shots, 4.5" triangle	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 4

Model BSD-4 / Bullet & Ricochet Resistant Door Assembly

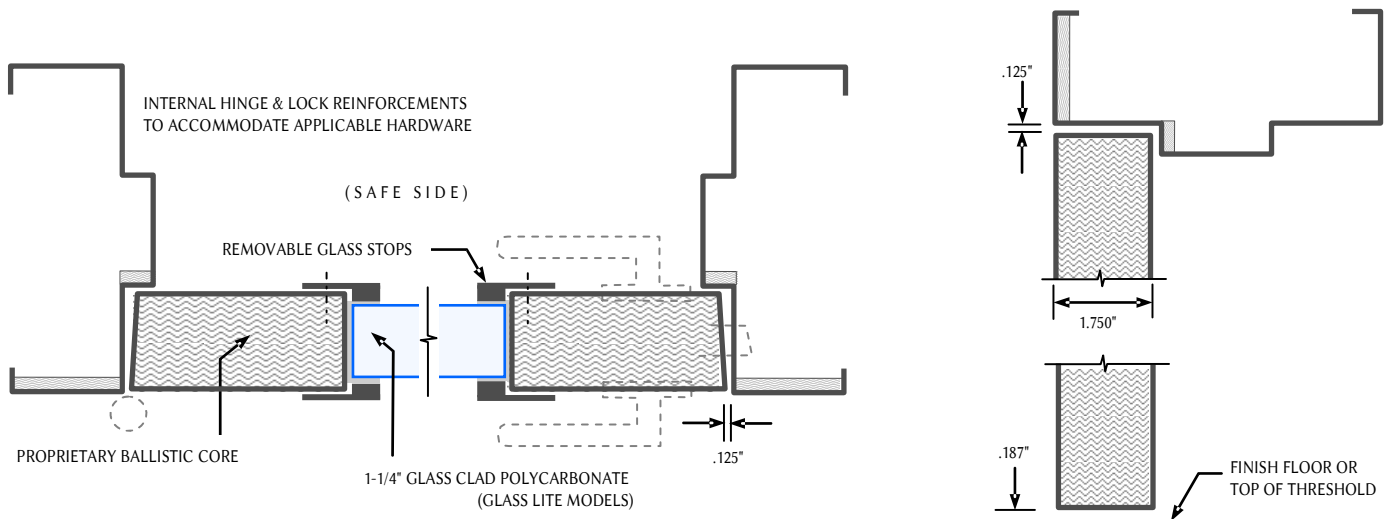
Assembly	Ballistica™ built-to-order bullet resistant steel door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	19.9 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 1-1/4" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard
Hardware	Hardware is not by Stiles.
Frames	See Frame Profiles and Frame Elevations
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 4 Test Criteria

Independently tested in accordance with UL 752 requirements

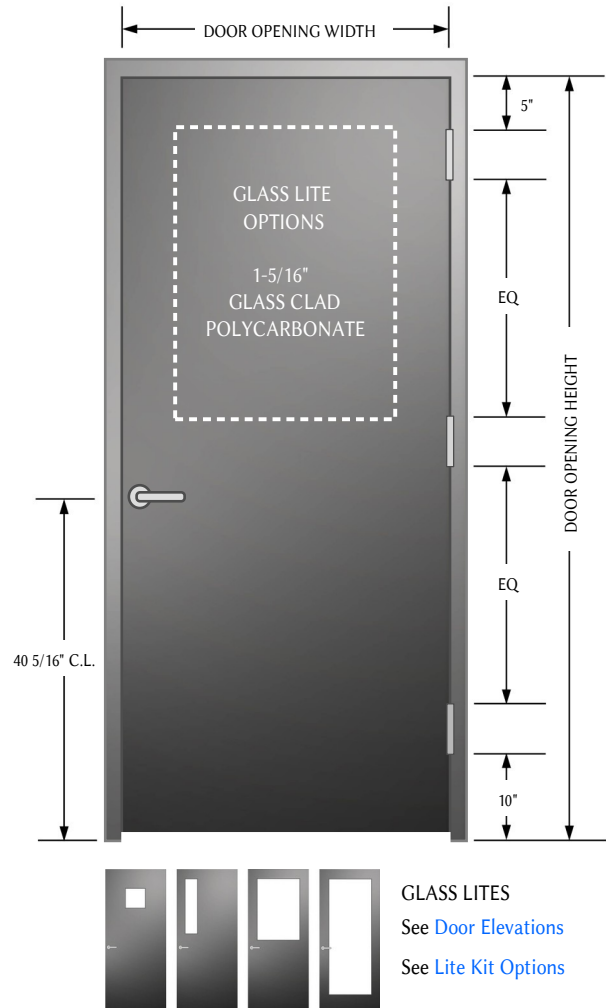
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
M-1 Garand, 30-06, .30 cal	.30 cal, 30-06, 180 gr. JSP	1	2,540 to 3,025	1 shot, centered	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 5

Model BSD-5 / Bullet & Ricochet Resistant Door Assembly

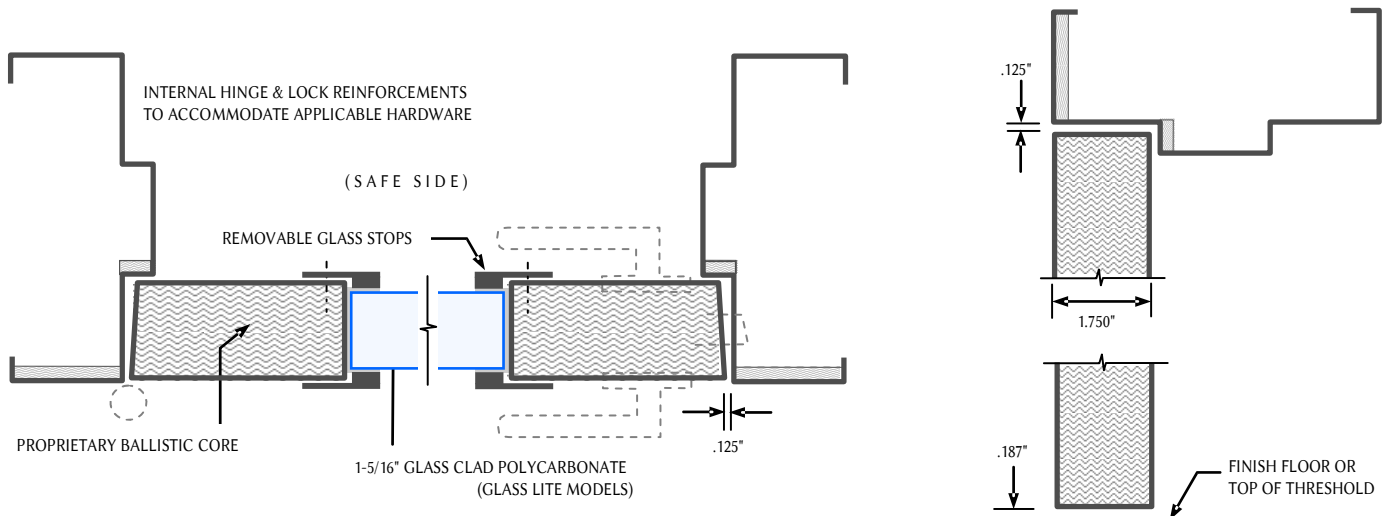
Assembly	Ballistica™ built-to-order bullet resistant door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	19.9 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 1-5/16" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard
Hardware	Hardware is not by Stiles.
Frames	See Frame Profiles and Frame Elevations
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 5 Test Criteria

Independently tested in accordance with UL 752 requirements

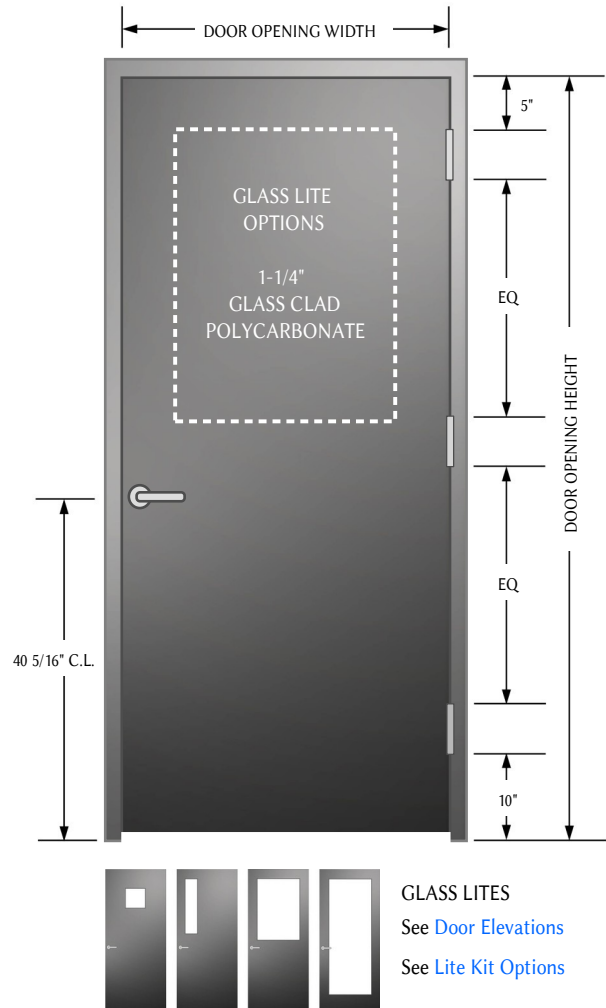
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
H&K G3, 7.62 X 51 NATO	.30 cal, 7.62 NATO, 150 gr. FMJ	1	2,750 to 3,025	1 shot, centered	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 6

Model BSD-6 / Bullet & Ricochet Resistant Door Assembly

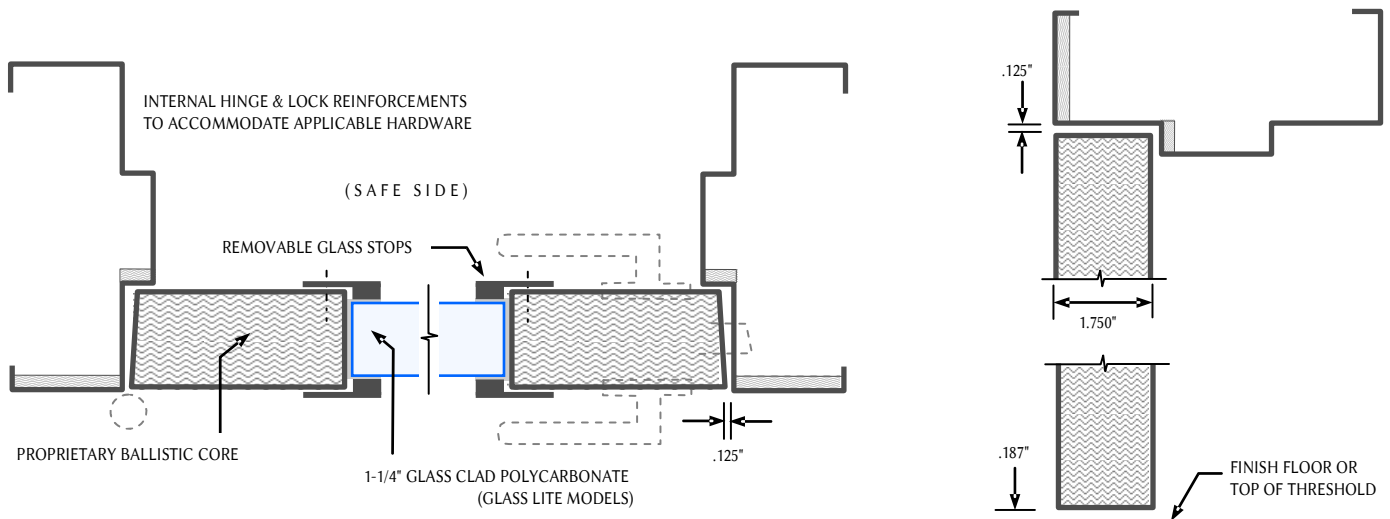
Assembly	Ballistica™ built-to-order bullet resistant door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	9.4 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 1-1/4" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard
Hardware	Hardware is not by Stiles.
Frames	See Frame Profiles and Frame Elevations
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 6 Test Criteria

Independently tested in accordance with UL 752 requirements

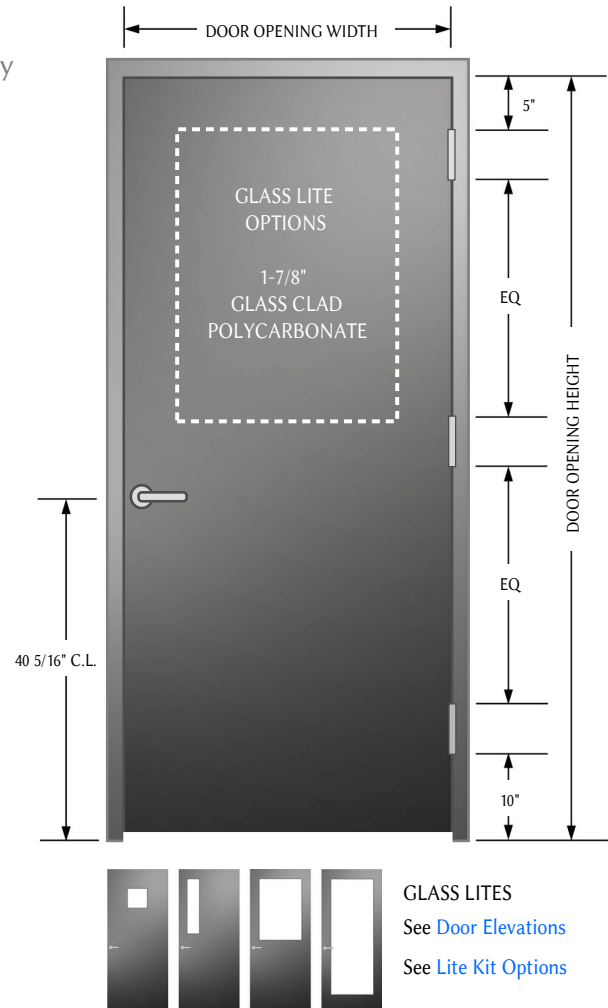
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Baretta 9mm Parabellum	9mm, 124 grain FMJ	5	1,400 to 1,2540	5 shots, 4.5" square	.125 cardboard @ 18"	72F



Level 7

Model BSD-7 / Bullet & Ricochet Resistant Steel Door Assembly

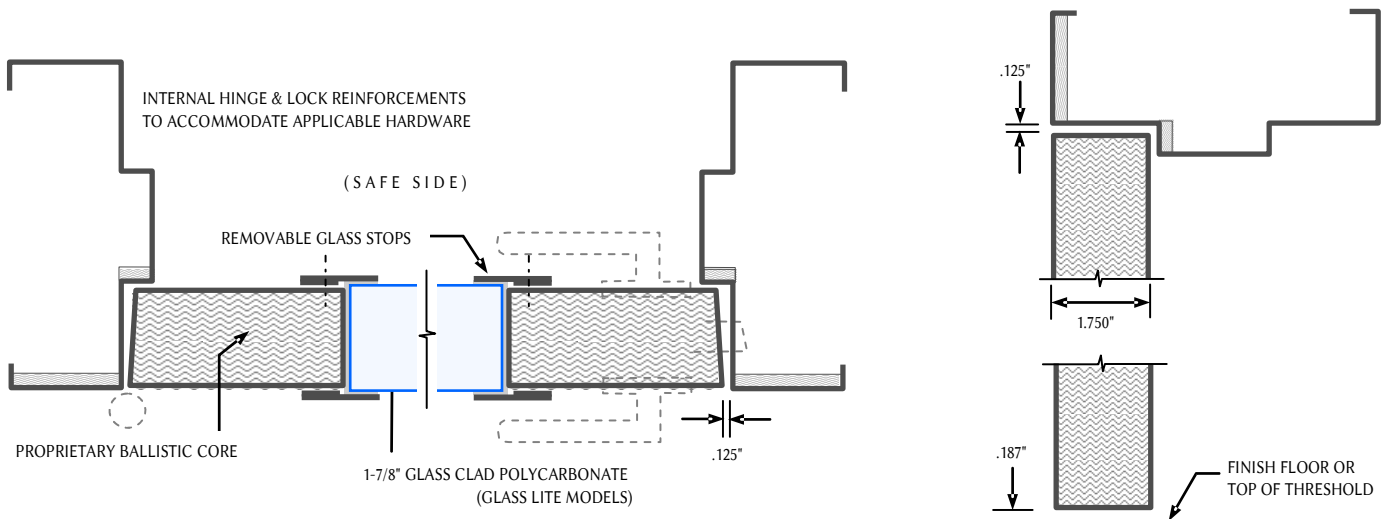
Assembly	Ballistica™ built-to-order bullet resistant door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	15.4 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 1-7/8" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard
Hardware	Hardware is not by Stiles
Frames	See Frame Profiles and Frame Elevations
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 7 Test Criteria

Independently tested in accordance with UL 752 requirements

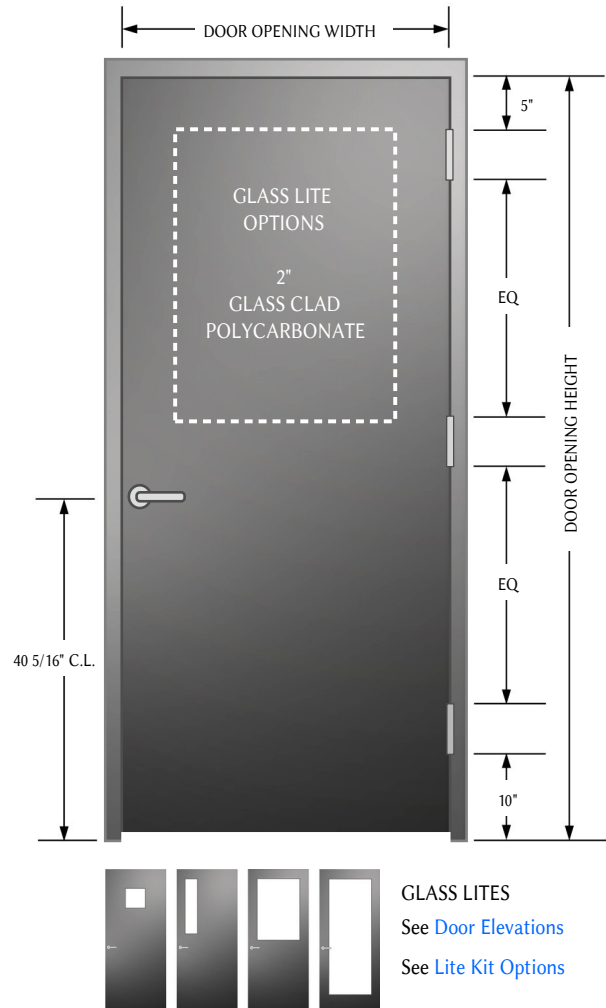
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Colt M16, 5.56 X 45 NATO	.223 cal, 5.56 NATO, 55 gr. FMJ	5	3,080 to 3,388	5 shots, 4.5" square	.125 cardboard @ 18"	72F



Level 8

Model BSD-8 / Bullet & Ricochet Resistant Door Assembly

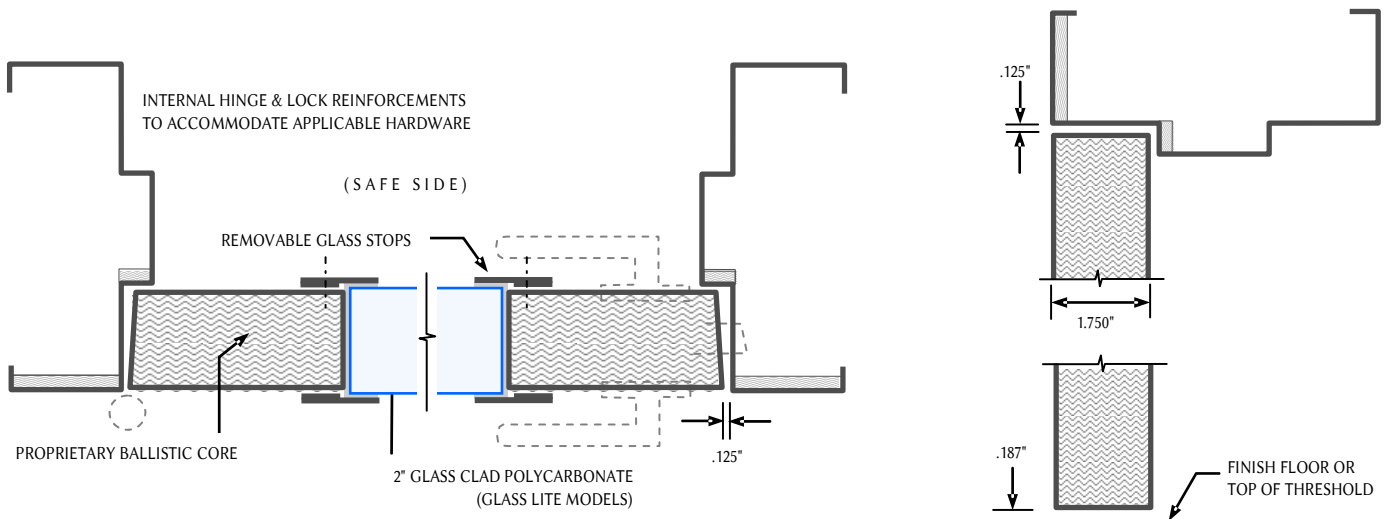
Assembly	Ballistica™ built-to-order bullet resistant door assemblies come complete with door, frame and lite kit (if applicable). For both interior or exterior locations. Oversized industrial assemblies available.
Material	A60 Galvanized, Stainless Steel , Bronze
Door Edges	1-3/4" thick, beveled 1/8" in 2"
Core	Proprietary; lead , asbestos , fiberglass & formaldehyde free
Door Weight	19.9 lbs. / sf Weight must be considered in hinge selection and wall design.
Glazing	1. 2" Glass Clad Polycarbonate required See Glass 2. Glass & glazing not included, standard
Hardware	Hardware is not by Stiles.
Frames	See Frame Profiles and Frame Elevations
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 252 Positive Pressure Up to 3 Hour Rating See Fire Rated
Sound	See Sound Control



UL752 Level 8 Test Criteria

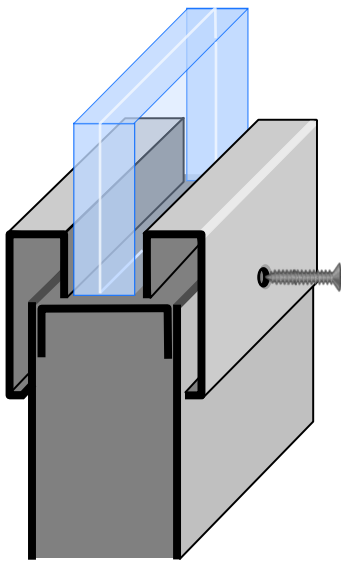
Independently tested in accordance with UL 752 requirements.

Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
H&K G3, 7.62 X 51 NATO	.30 cal, 7.62 NATO, 150 gr. FMJ	5	2,750 to 3,025	5 shots, 4.5" square	.125 cardboard @ 18"	72F



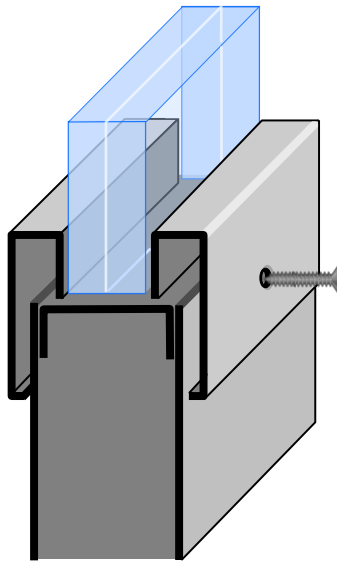
Stiles also offers moulding configurations not shown below. Contact factory for more information.

NOTE: Removable glass stops are typically installed to the interior of the building.



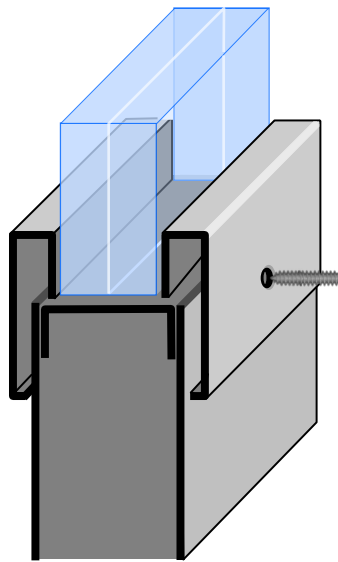
Level 1

1-3/4" Metal Door
3/4" Glass Clad Polycarbonate
5/8" X 5/8" Removable Stops
**Concealed Fasteners Available*



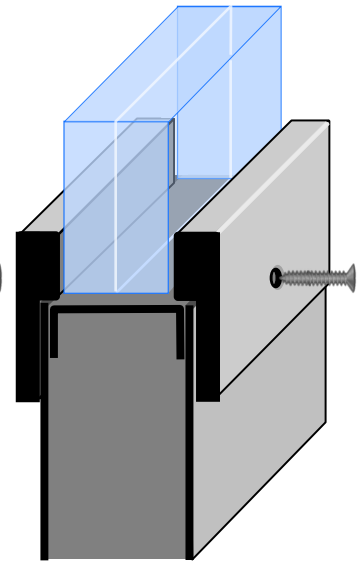
Level 2

1-3/4" Metal Door
15/16" Glass Clad Polycarbonate
7/16" X 5/8" Removable Stops
**Concealed Fasteners Available*



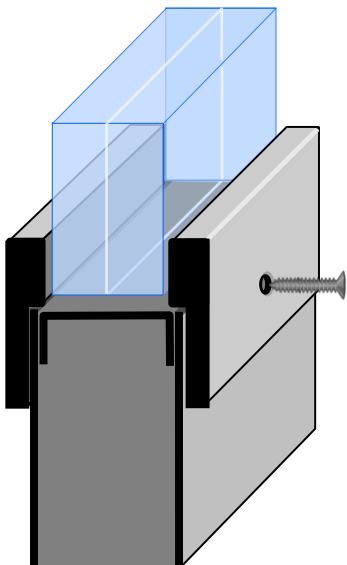
Level 3

1-3/4" Metal Door
1-1/8" Glass Clad Polycarbonate
1-1/2" Removable Stops



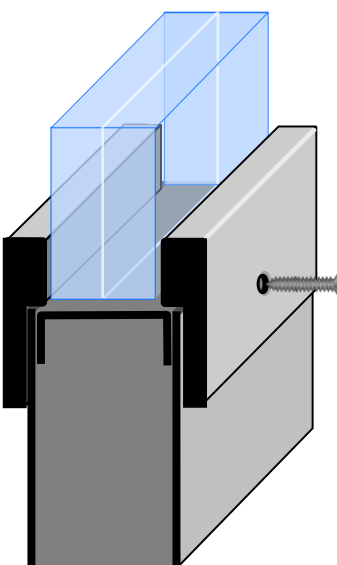
Level 4

1-3/4" Metal Door
1-1/4" Glass Clad Polycarbonate
1-1/2" Removable Stops



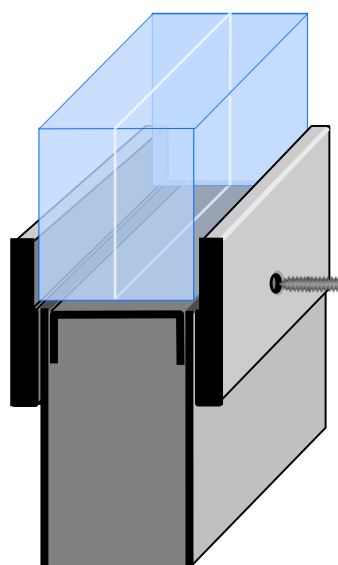
Level 5

1-3/4" Metal Door
1-5/16" Glass Clad Polycarbonate
1-1/2" Removable Stops



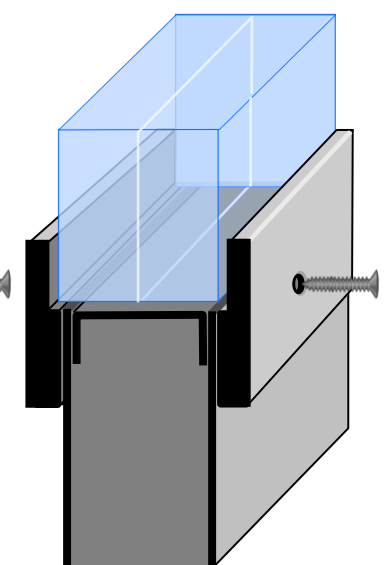
Level 6

1-3/4" Metal Door
1-1/4" Glass Clad Polycarbonate
1-1/2" Removable Stops



Level 7

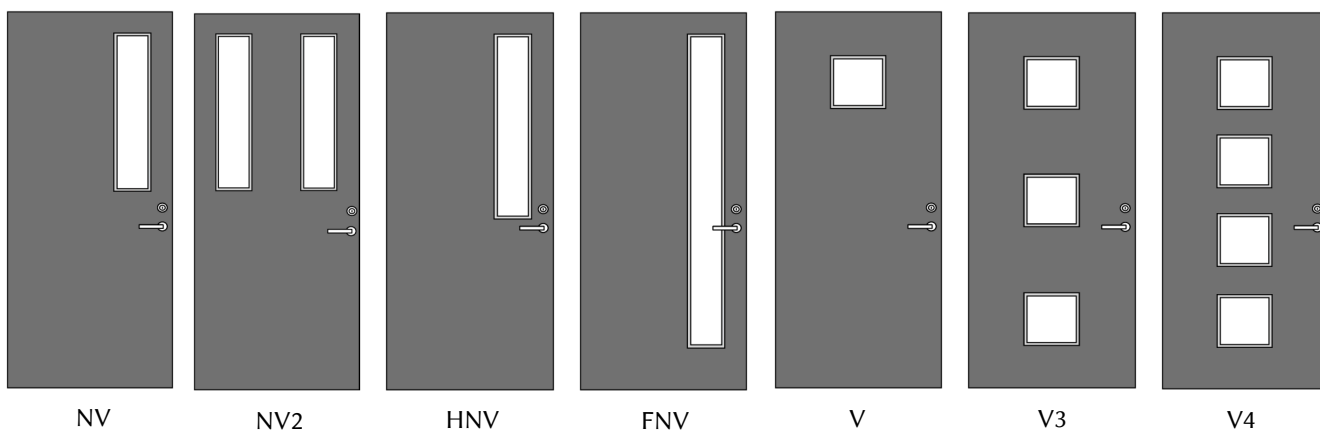
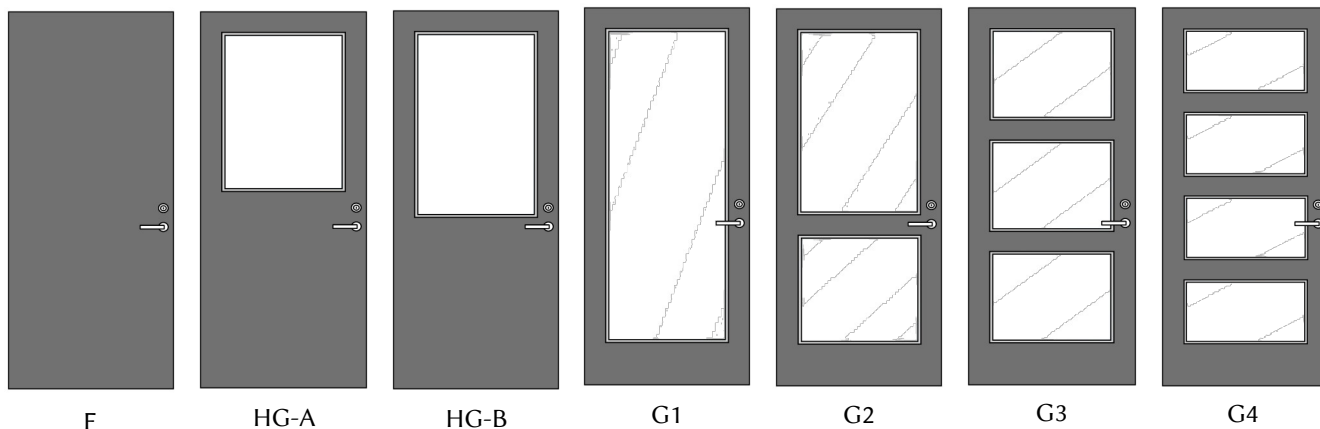
1-3/4" Metal Door
1-7/8" Glass Clad Polycarbonate
1-1/2" Removable Stops












Level 8

1-3/4" Metal Door
2" Glass Clad Polycarbonate
1-1/2" Removable Stops

Sampling of Available Elevations

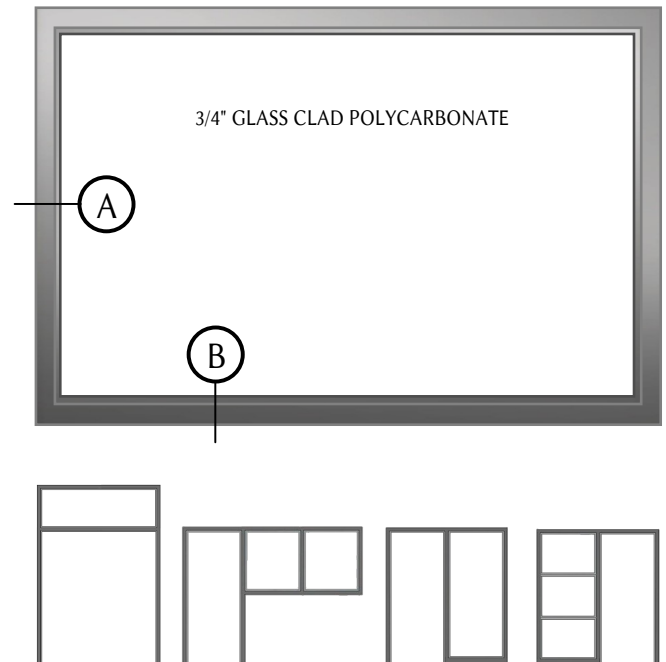


UL Level	Ammunition	Ballistica™ Bullet Resistant Window Models			Elevation Options	Glass Thickness Max. Lite Size	Page
		Steel	Stainless Steel	Bronze			
1	 9mm, 124 grain FMJ	BSW-1	BSSW-1	BBW-1	Fixed Window Transom Sidelite	3/4" GCP (60" X 96")	BR-5.1
2	 .357 Magnum, 158 grain JSP	BSW-2	BSSW-2	BBW-2	Fixed Window Transom Sidelite	15/16" GCP (60" X 96")	BR-5.2
3	 .44 Magnum, 240 grain SWC	BSW-3	BSSW-3	BBW-3	Fixed Window Transom Sidelite	1-1/8" GCP (60" X 96")	BR-5.3
4	 .30 cal, 30-06, 180 grain JSP	BSW-4	BSSW-4	BBW-4	Fixed Window Transom Sidelite	1-1/4" GCP (60" X 96")	BR-5.4
5	 .30 cal, 7.62 NATO, 150 grain FMJ	BSW-5	BSSW-5	BBW-5	Fixed Window Transom Sidelite	1-5/16" GCP (60" X 96")	BR-5.5
6	 9mm, 124 grain FMJ	BSW-6	BSSW-6	BBW-6	Fixed Window Transom Sidelite	1-1/4" GCP (60" X 96")	BR-5.6
7	 .223 cal, 5.56 NATO, 55 grain FMJ	BSW-7	BSSW-7	BBW-7	Fixed Window Transom Sidelite	1-7/8" GCP (60" X 96")	BR-5.7
8	 .30 cal, 7.62 NATO, 150 grain FMJ	BSW-8	BSSW-8	BBW-8	Fixed Window Transom Sidelite	2" GCP (60" X 96")	BR-5.8
SGS		Shotgun Supplement Available All Levels - Contact Factory			Fixed Window Transom Sidelite	Varies	

Level 1

Model BSW-1 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 3/4" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control



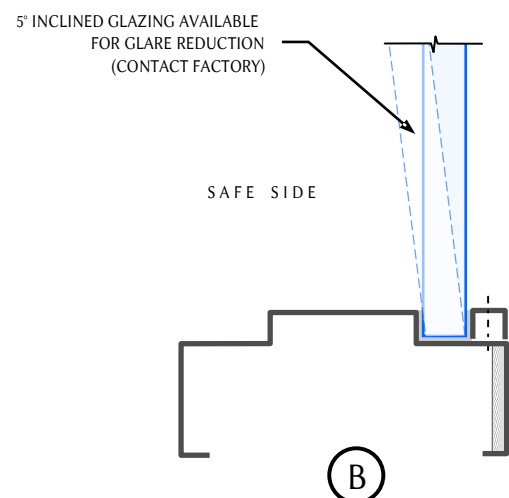
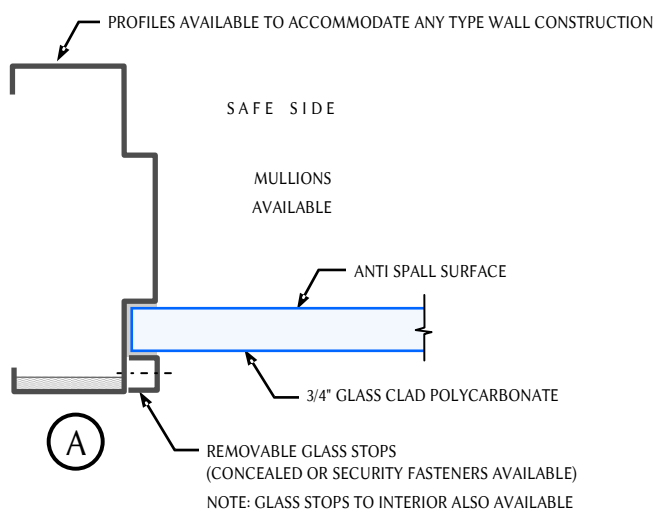
Built to order per customer's requirements

Multiple frame configurations and profile options available

UL752 Level 1 Test Criteria

Independently tested in accordance with UL 752 requirements

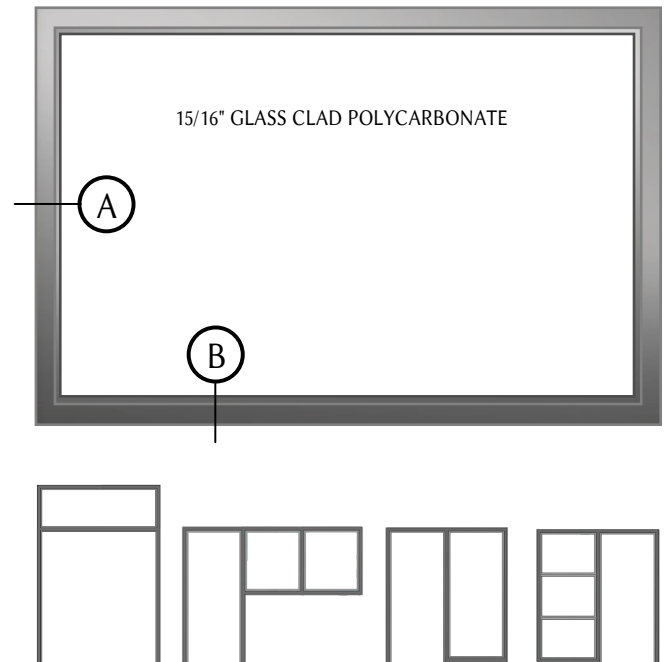
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Baretta 9mm Parabellum	9mm, 124 gr. FMJ	3	1,175 to 1,292	3 shots, 4.5" triangle	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 2

Model BSW-2 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 15/16" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control

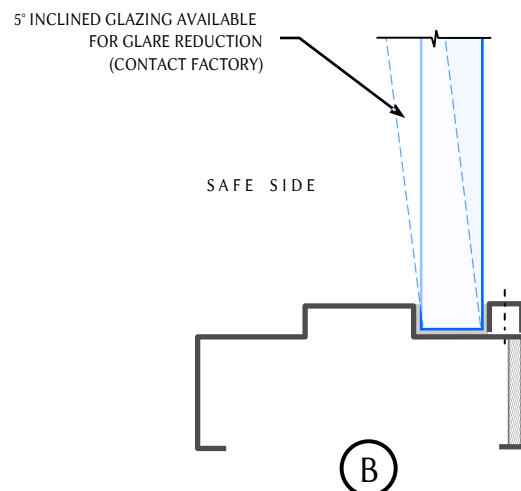
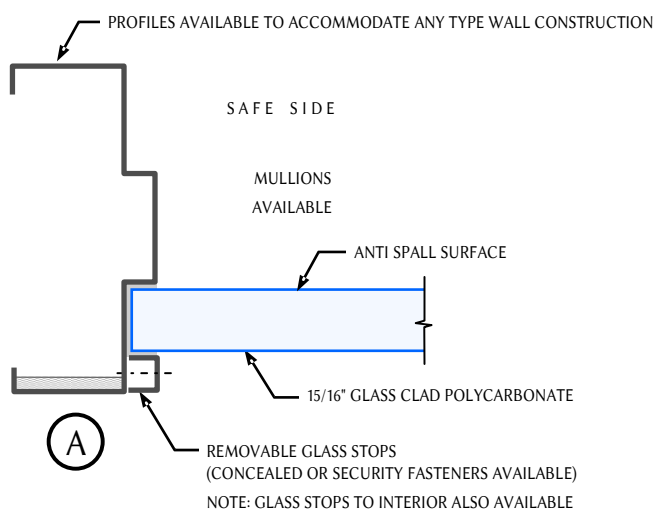


Built to order per customer's requirements
Multiple frame configurations and profile options available

UL752 Level 2 Test Criteria

Independently tested in accordance with UL 752 requirements

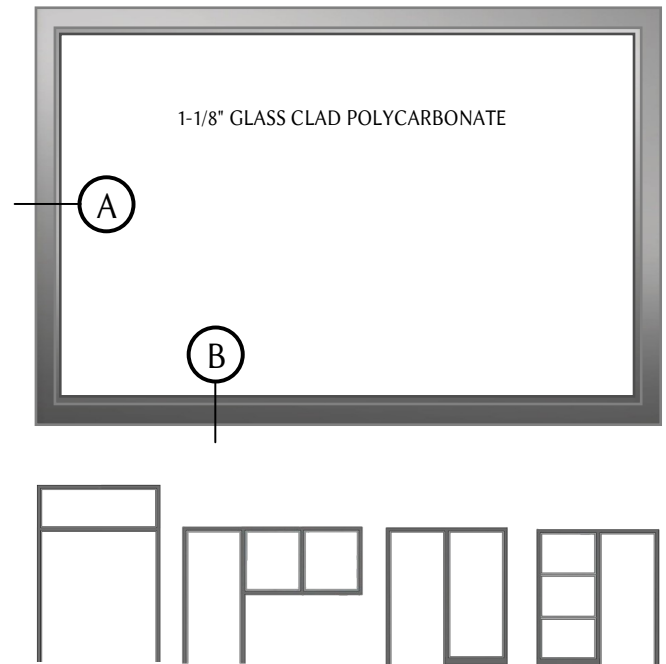
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
S&W .357 Magnum	.357 Mag, 158 gr. JSP	3	1,250 to 1,375	3 shots, 4.5" triangle	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 3

Model BSW-3 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 1-1/8" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control



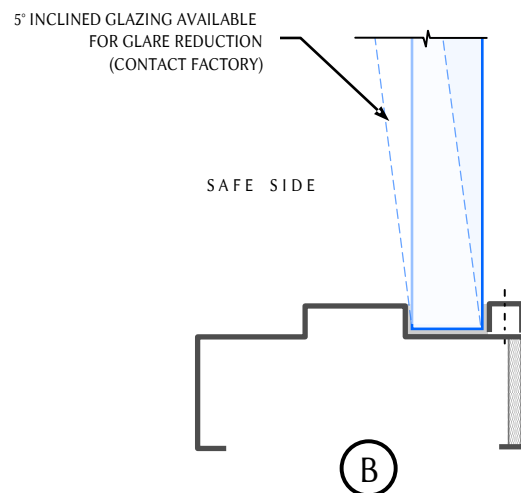
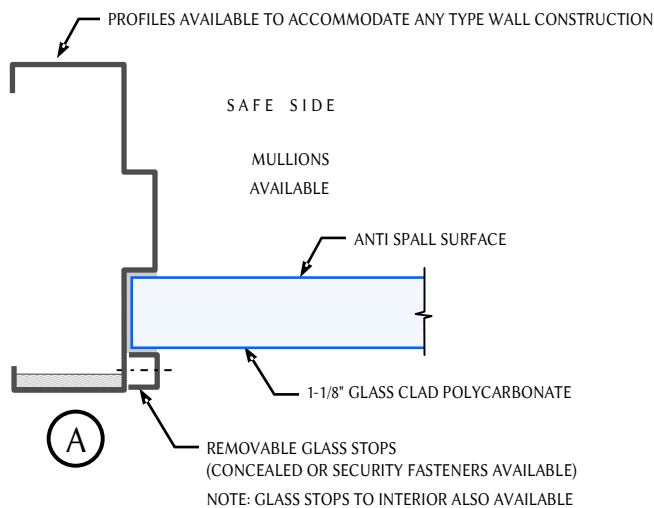
Built to order per customer's requirements

Multiple frame configurations and profile options available

UL752 Level 3 Test Criteria

Independently tested in accordance with UL 752 requirements

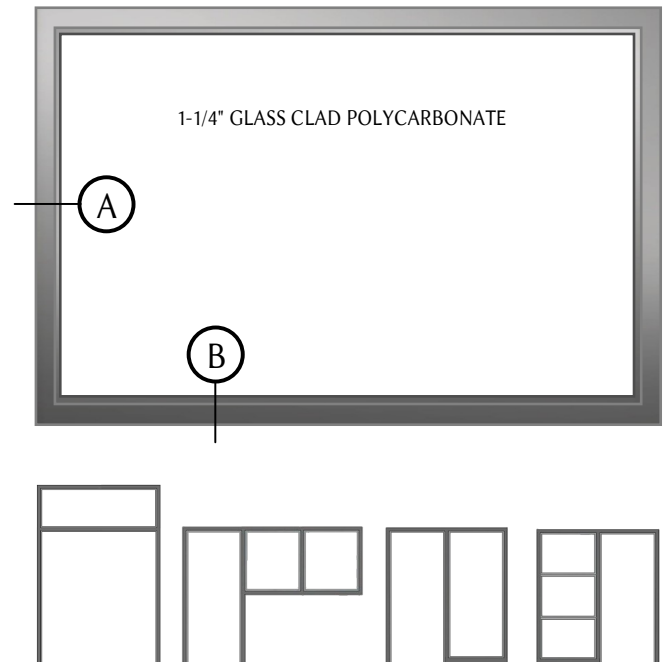
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Colt .44 Magnum	.44 Mag, 240 gr. SWC	3	1,350 to 1,485	3 shots, 4.5" triangle	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 4

Model BSW-4 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 1-1/4" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control



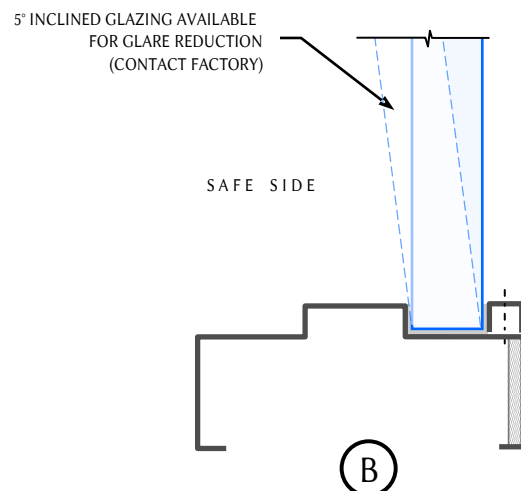
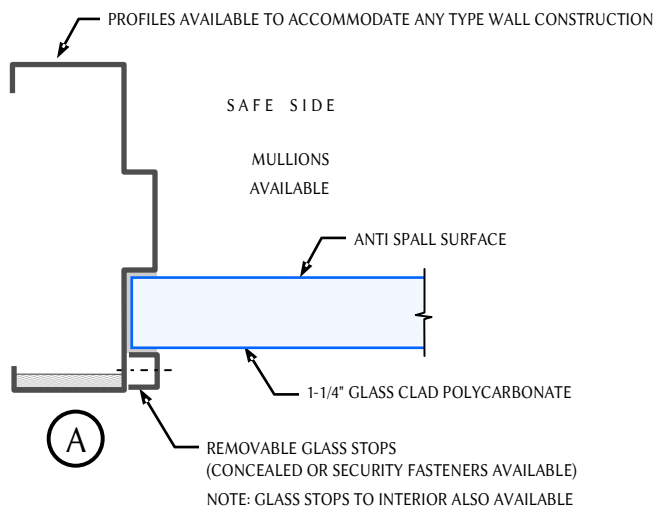
Built to order per customer's requirements

Multiple frame configurations and profile options available

UL752 Level 4 Test Criteria

Independently tested in accordance with UL 752 requirements

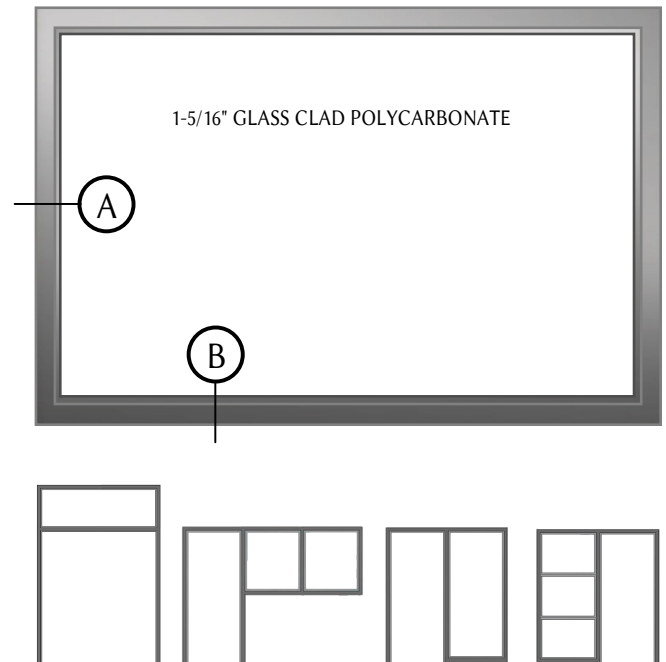
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
M-1 Garand, 30-06, .30 cal	.30 cal, 30-06, 180 gr. JSP	1	2,540 to 3,025	1 shot, centered	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 5

Model BSW-5 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 1-5/16" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control

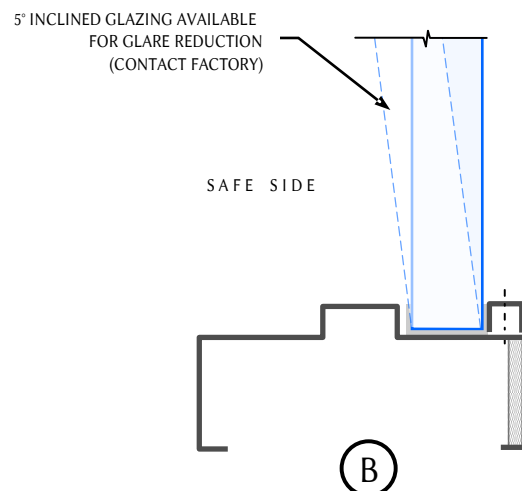
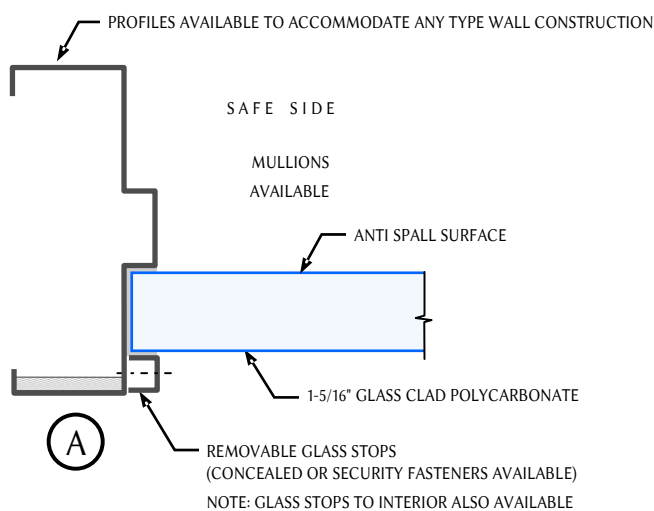


Built to order per customer's requirements
Multiple frame configurations and profile options available

UL752 Level 5 Test Criteria

Independently tested in accordance with UL 752 requirements

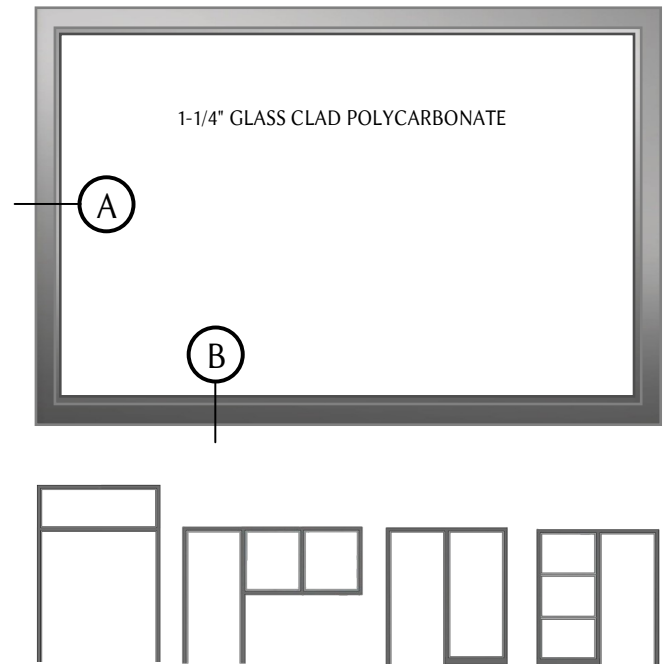
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
H&K G3, 7.62 X 51 NATO	.30 cal, 7.62 NATO, 150 gr. FMJ	1	2,750 to 3,025	1 shot, centered	.125 cardboard @ 18"	(-26/72) 55, 72, 95, 120F



Level 6

Model BSW-6 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 1-1/4" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control

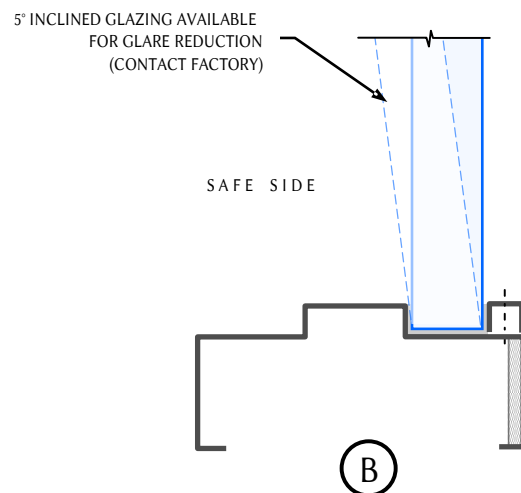
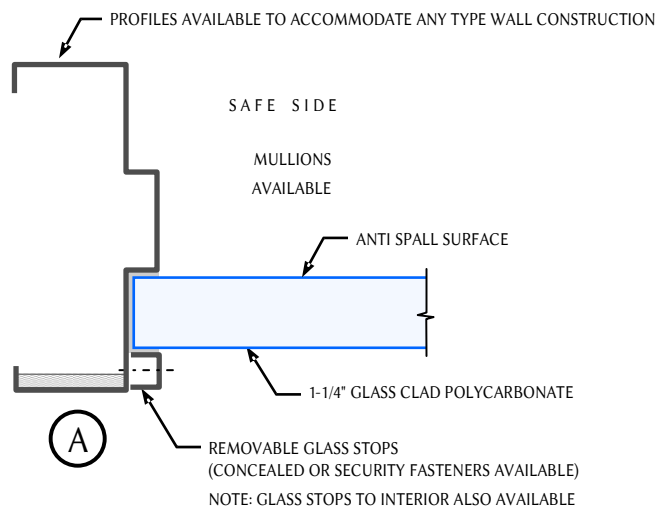


Built to order per customer's requirements
Multiple frame configurations and profile options available

UL752 Level 6 Test Criteria

Independently tested in accordance with UL 752 requirements

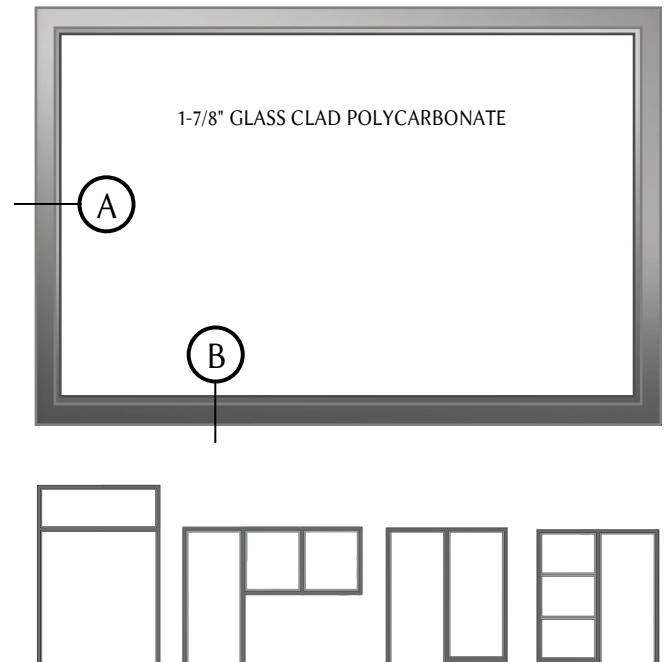
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Baretta 9mm Parabellum	9mm, 124 grain FMJ	5	1,400 to 1,2540	5 shots, 4.5" square	.125 cardboard @ 18"	72F



Level 7

Model BSW-7 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 1-7/8" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control



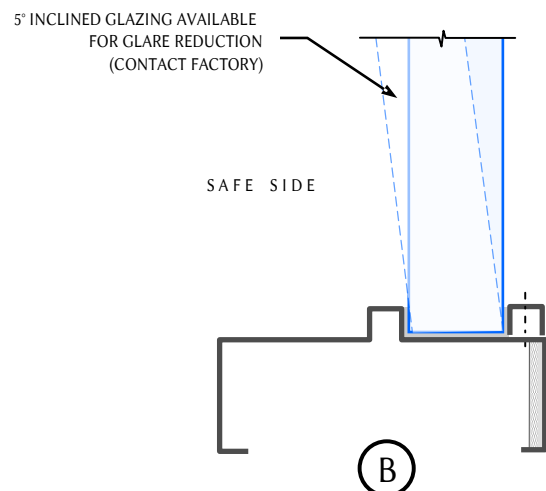
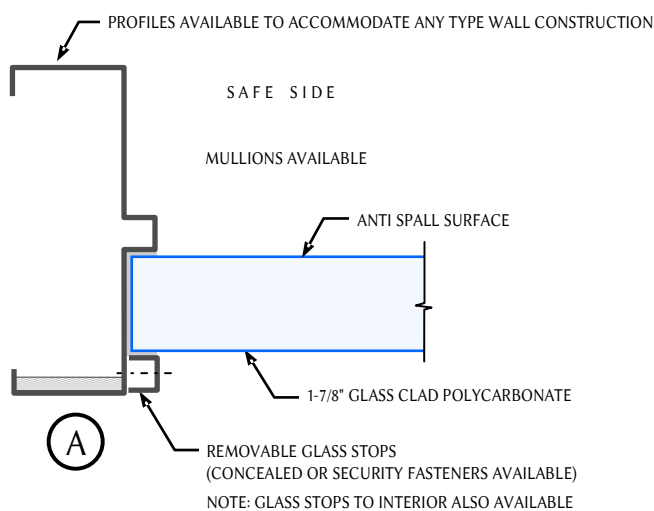
Built to order per customer's requirements

Multiple frame configurations and profile options available

UL752 Level 7 Test Criteria

Independently tested in accordance with UL 752 requirements

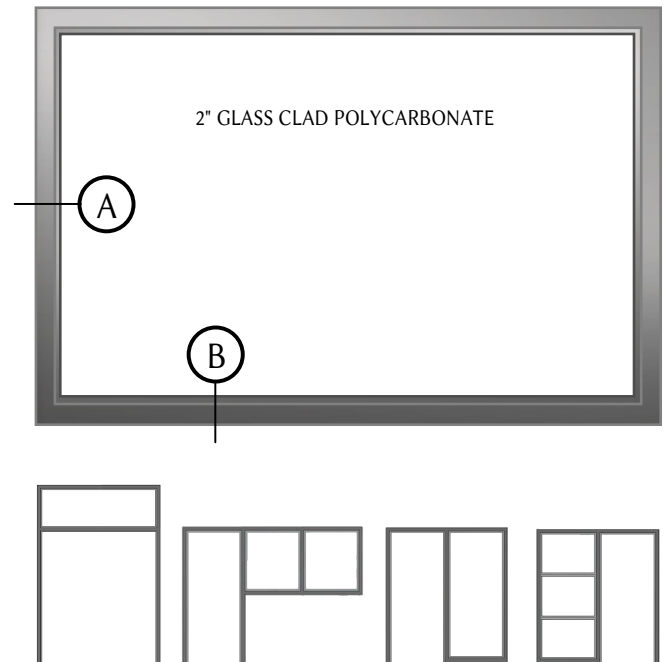
Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
Colt M16, 5.56 X 45 NATO	.223 cal, 5.56 NATO, 55 gr. FMJ	5	3,080 to 3,388	5 shots, 4.5" square	.125 cardboard @ 18"	72F



Level 8

Model BSW-8 / Bullet & Ricochet Resistant Windows

Description	Ballistica™ built-to-order bullet resistant steel windows come complete with frame, removable glass stops and stop fasteners.
Materials	1. A60 Galvanized 2. Stainless Steel 3. Bronze
Frames	Fully welded frame is manufactured to accommodate any type of wall construction. Various designs available including single and multiple lites, transoms, sidelites, etc. See Frame Profiles and Frame Elevations
Glazing	1. 2" Glass Clad Polycarbonate required See Glass 2. Glass and glazing not included (standard) 3. Optional 5° Inclined glazing for glare reduction 4. Optional Concealed glass stop fasteners
Primer	PPG Primer - Gray
Fire Rating	Per UL10C / NFPA 257 Positive Pressure Up to 1-1/2 Hour Rating See Fire Rated
Sound	See Sound Control

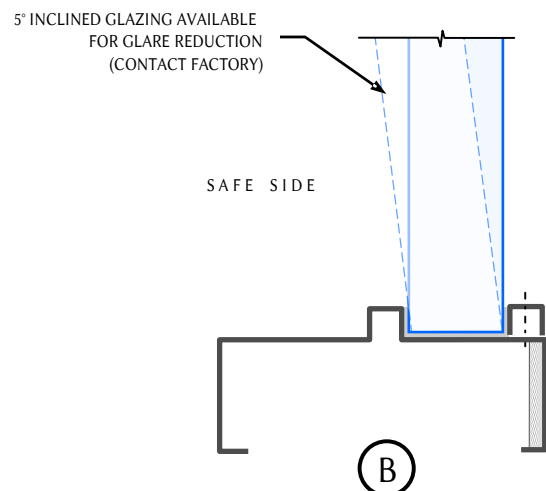
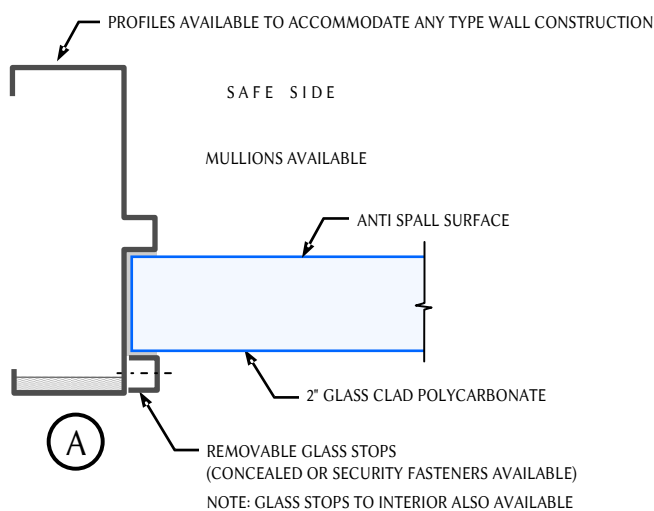


Built to order per customer's requirements
Multiple frame configurations and profile options available

UL752 Level 8 Test Criteria

Independently tested in accordance with UL 752 requirements.

Weapon	Ammunition	Shots	Velocity (ft/sec)	Shot Spacing	Witness Plate	Test Temperature
H&K G3, 7.62 X 51 NATO	.30 cal, 7.62 NATO, 150 gr. FMJ	5	2,750 to 3,025	5 shots, 4.5" square	.125 cardboard @ 18"	72F





Bullet Resistant Glass Glass Clad Polycarbonate

UL752 Level	Item No.	Description	Thickness In.	Weight lb/ft ²	Max. Lite Size
1	GLO-SP175	Clear Glass Clad Polycarbonate	3/4"	7.14	60" X 96"
2	GLO-SP293	Clear Glass Clad Polycarbonate	15/16"	10.34	60" X 96"
3	GLO-SP311	Clear Glass Clad Polycarbonate	1-1/8"	12.19	60" X 96"
4	GLO-SP412-A	Clear Glass Clad Polycarbonate	1-1/4"	14.04	60" X 96"
5	GLO-SP513	Clear Glass Clad Polycarbonate	1-5/16"	15.89	60" X 96"
6	GLO-SP412-B	Clear Glass Clad Polycarbonate	1-1/4"	14.05	60" X 96"
7	OLD-227100	Clear Glass Clad Polycarbonate	1-5/8"	18.50	60" X 96"
8	GLO-SP820	Clear Glass Clad Polycarbonate	2"	21.21	60" X 96"

NOTES:

1. Glass thickness varies by manufacturer
2. Glass clad polycarbonate is a proprietary lamination of successive layers of glass and an interior (non-threat side) layer of clear scratch-resistant polycarbonate.
3. Polycarbonate is one of the toughest clear plastics, having 250 times the impact strength of glass and is designed to flex and absorb the energy of the bullet. Furthermore, the polycarbonate will not break into shards (spalling) that may cause bodily harm to the building's occupants.

PART I GENERAL

1.01 SUMMARY

- A. Description: This section includes Bullet and Ricochet Resistant Steel Door, Frame and Window systems and Wood Doors that have been tested in accordance with UL 752, ASTM F1450, Section 7.1, "Bullet Penetration", Level ____.
- B. Related work not included in this section:
 - 1. Steel doors and frames.
 - 2. Wood Doors.
 - 3. Finish hardware including lock cylinders and thresholds.
 - 4. Glass and glazing.
 - 5. Caulking between frames and masonry.
 - 6. Structural members.

1.02 QUALITY ASSURANCE

- A. Applicable standards of the following as referenced herein:
 - 1. AAMA, American Architectural Manufacturers Association.
 - 2. ASTM, American Society for Testing and Materials.
 - 3. ADA, Americans with Disabilities Act.
 - 4. NAAMM/HMMA, National Association of Architectural Metals Manufacturers.
 - 5. TM5-855-1 Fundamentals of Design for Conventional Weapons; Department of Army.
 - 6. UL 752 Bullet Resistant Equipment.
 - 7. WDMA, Wood Door Manufacturers Association
- B. Quality is based on the **Ballistica™** products manufactured by Stiles Custom Metal, Inc.
www.stilesdoor.com
- C. Manufacturer shall have been regularly engaged in manufacturing bullet resistant doors and frames for a period of ten years. Door and frame shall be fabricated by a single manufacturer. The manufacturer must have an effective quality control system in place.
- D. Allowable Tolerances as stated in NAAMM/HMMA Technical Manual and WDMA.

1.03 SUBMITTALS: Shop drawings: Indicate in elevation with sections and details to scale. Include UL Protection Level with independent test report, glass and metal thicknesses, joining details, field connections, anchorage, concealed and exposed fastening methods, door and framing reinforcement, and metal finishes. Indicate compliance with specified design criteria.

1.04 WARRANTY: Warrant Doors, Frames and Window assemblies against defect in materials and workmanship for three (3) years from date of shipment when handled, stored, and installed in accordance with manufactures instruction and NAAMM/HMMA Technical Manual.

PART 2 - PRODUCTS

2.01 DOORS

- A. Steel Doors shall be **Ballistica™** Bullet and Ricochet Resistant Doors, Level ____ as manufactured by Stiles Custom Metal, Inc. www.stilesdoor.com
 - 1. Construction: Face sheets shall be minimum 16 gage steel. All doors shall be of the types and sizes shown on the approved submittal drawings and shall be constructed in accordance with the specifications.
 - 2. Door Core: The door shall be stiffened by continuous, vertical, formed steel sections supporting the bullet resistant core. Spaces between stiffeners shall be filled with sound deadening material.
 - 3. Door thickness shall be 1 ¾". Doors shall be neat in appearance and free from warp-age or buckle. Edge bends shall be true and straight.

Ballistica™ BULLET RESISTANT DOOR AND WINDOW SYSTEMS (continued)

4. Vertical Edges: Door face sheets shall be joined at center of vertical edges and continuously welded full height of door with no visible seams on faces or vertical edges. Welds shall be finished smooth. Single acting doors - beveled 1/8" in 2" profile.
 5. The top and bottom edges shall be closed with a continuous channel. Openings shall be provided in the bottom channel of exterior doors to permit the escape of entrapped moisture. Top of exterior doors shall be fitted with an additional flush closing channel and sealed water-tight.
 6. Glazed Lite Kits (if applicable) shall be furnished complete with removable glass stops and glazing gasket seals designed and tested to meet required level.
 7. Finish: After fabrication, all tool marks & surface imperfections shall be removed and faces of all weld joints shall be dressed smooth. Doors and frames shall be treated to insure maximum paint adhesion and shall be painted on all accessible surfaces with one coat of a rust inhibitive, modified Alkyd, Zinc compound, gray primer that meets or exceeds all ANSI A250.10-98 performance criteria. Primer coat shall be fully cured prior to shipment. Red or brown colored primers shall not be permitted.
- B. Wood Doors shall be based on Ballistica™ Bullet and Ricochet Resistant Doors, Level ____ as manufactured by Stiles Custom Metal, Inc. www.stilesdoor.com
1. Construction: All doors shall be of the types and sizes shown on approved shop drawings.
 2. Visible seams or joints on door faces are NOT permitted.
 3. Veneer thickness, internal bullet resistant core and perimeter door edge construction to be manufacturers standard for the specified model.
 4. Face veneer species, cut and color shall match that specified in "Wood Door" section.
 5. Glazed Lite Kits (if applicable) shall be furnished complete with removable glass stops and glazing gasket seals designed and tested to meet required level.
 6. Factory finishing of doors shall comply with AWI standards and the Wood Door Section.

2.02 FRAMES: Construction: Frames shall be a protection level equal to the door. Frames shall be constructed of minimum 16 ga. steel. Finish work shall be neat and free of defects. Corners shall be mitered and continuously welded full length of intersection. Knocked down, mechanical joints are not acceptable. All exposed welds shall be ground flush, finished smooth and free of defects.

2.03 BULLET / RICOCHET RESISTANT FIXED WINDOWS

- A. Acceptable products shall be Ballistica™ Bullet and Ricochet Resistant Protection Level ____ as manufactured by Stiles Custom Metal, Inc. www.stilesdoor.com
- B. Window Frame Constructed: minimum 16 ga. steel. Finish work shall be neat and free of defects. Corners shall be mitered & continuously welded full length of intersection. Knocked down, mechanical joints are not acceptable. All exposed welds shall be ground flush, finished smooth and free of defects.
- C. Glass molding shall be furnished complete with fixed and loose glass stop system designed and tested to meet required bullet resistant level.

2.04 BULLET RESISTANT GLASS

2.04 BULLET RESISTANT GLASS

- A. Glass for Door Lites: (choose)

[\[Glass shall be furnished and installation by the sound door / window manufacturer in type and thickness required to meet the STC rating.\]](#)

[\[Glass shall be furnished by the sound door / window manufacturer in type and thickness required to meet the STC rating. Glass installations shall taking place in the field by glazing contractor in accordance with the manufacturers instructions.\]](#)

[\[Glass shall be furnished and installed in the field by glazing contractor. Glass type, thickness and installation method in accordance with the sound door / window manufacturers instructions.\]](#)

Ballistica™ BULLET RESISTANT DOOR AND WINDOW SYSTEMS (continued)

B. Fixed Windows: (choose)

[Glass shall be furnished by the sound door / window manufacturer in type and thickness required to meet the STC rating. Glass installations shall taking place in the field by glazing contractor in accordance with the manufacturers instructions.]

[Glass shall be furnished and installed in the field by glazing contractor. Glass type, thickness and installation method in accordance with the sound door / window manufacturers instructions.]

2.05 FINISH HARDWARE: Doors and frames shall be mortised, reinforced, drilled and tapped at the factory for completely templated mortised hardware only, in accordance with the final approved hardware schedule and templates provided by the hardware supplier. Where surface mounted, anchor hinges, or non-template mor-tise hardware is to be applied, doors shall be reinforced, with all drilling and tapping done by others in the field. Reinforcement steel shall comply with NAAMM/HMMA 830 and 861.

PART 3 - EXECUTION

3.01 CLEARANCES AND TOLERANCES shall be in compliance with NAAMM / HMMA standards.

3.02 SITE STORAGE AND PROTECTION OF MATERIALS

- A. Deliver and store materials to prevent damaging and marring finishes.
- B. Protection: Protect metal surfaces from contact with lime, mortar, cement, acids, and other harmful surfaces and from careless handling, storage or machining.

3.03 INSTALLATION:

- A. Framing systems shall be installed per Stiles instructions and NAAMM / HMMA 840. Install frames without use of exposed fasteners, except where indicated on shop drawings.

Door Installation: Install doors and hardware in accordance with manufacturer's product data. Adjust hardware for proper operation. Adjust door closers for smooth operation throughout swing.

3.04 CLEANING: Clean doors and frames in accordance with manufacturer's special instructions.

3.05 MAINTENANCE: Instruct the Owner's Maintenance Personnel regarding the operation and maintenance of these doors.

End of Section



Mandarin Hotel, Las Vegas, NV



Introducing an innovative approach to factory assembled modular steel storefront systems. StileLine ~ the world's premier hollow metal steel storefront system. Modules stack together for lightening fast installation, with no visible screws, clips or fasteners.

Features

- L O N G Span Capability
- Integrated Structural Members
- Cold Rolled, A60, Stainless or Bronze
- Modular Design
- Narrow Sight Lines
- FAST Installation
- Interior or Exterior Applications

Glass

- Allowance for 1/4" to 1" Glass

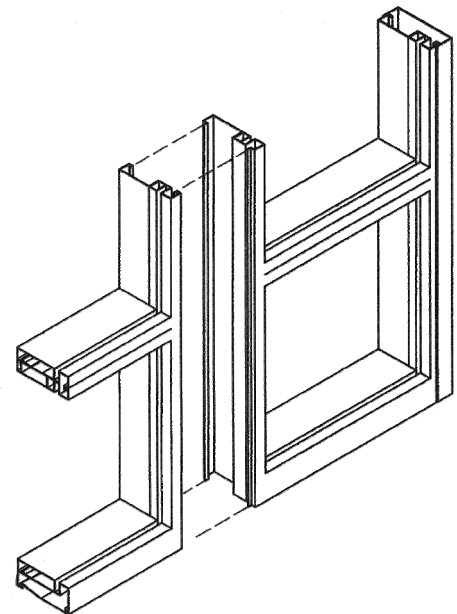
Finishing

- Factory Finishing Available

For complete details and specifications, please consult online catalog at: www.stilesdoor.com

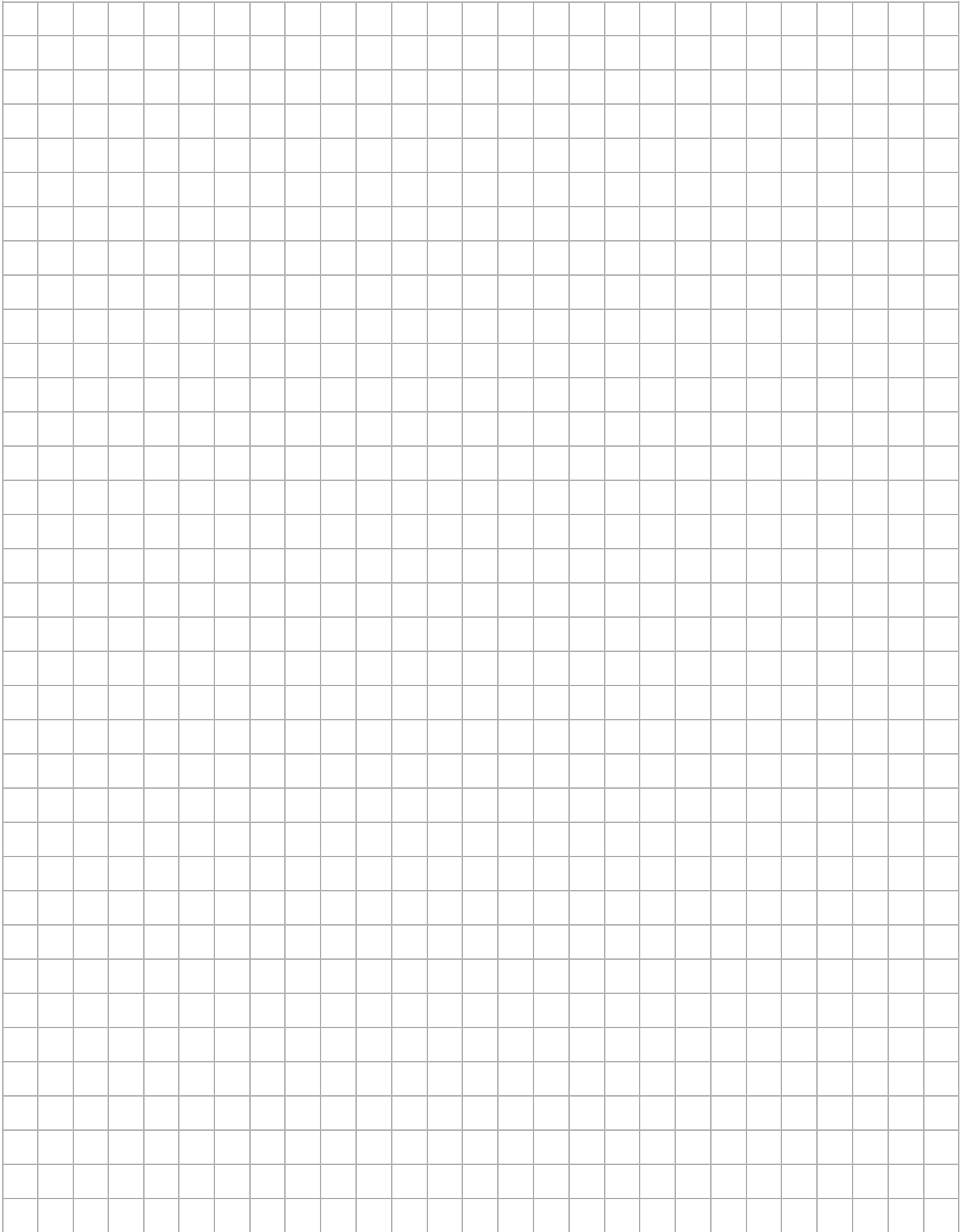
Section Contents

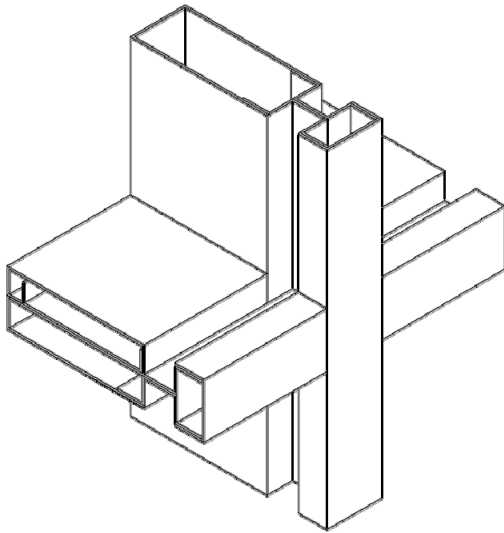
Tuck Glazed System	SF-1.0
Flush Glazed System	SF-2.0
Structural Glazed System	SF-3.0
Pressure Glazed System	SF-4.0
Operable Vents	SF-5.0
Entrances	SF-6.0 to 6.2



Built to Order.™

Notes





Features

- LONG Span Capability
- Integrated Structural Members
- Cold Rolled, A60, Stainless or Bronze
- Modular Design
- Narrow Sight Lines
- FAST Installation
- Interior or Exterior Applications

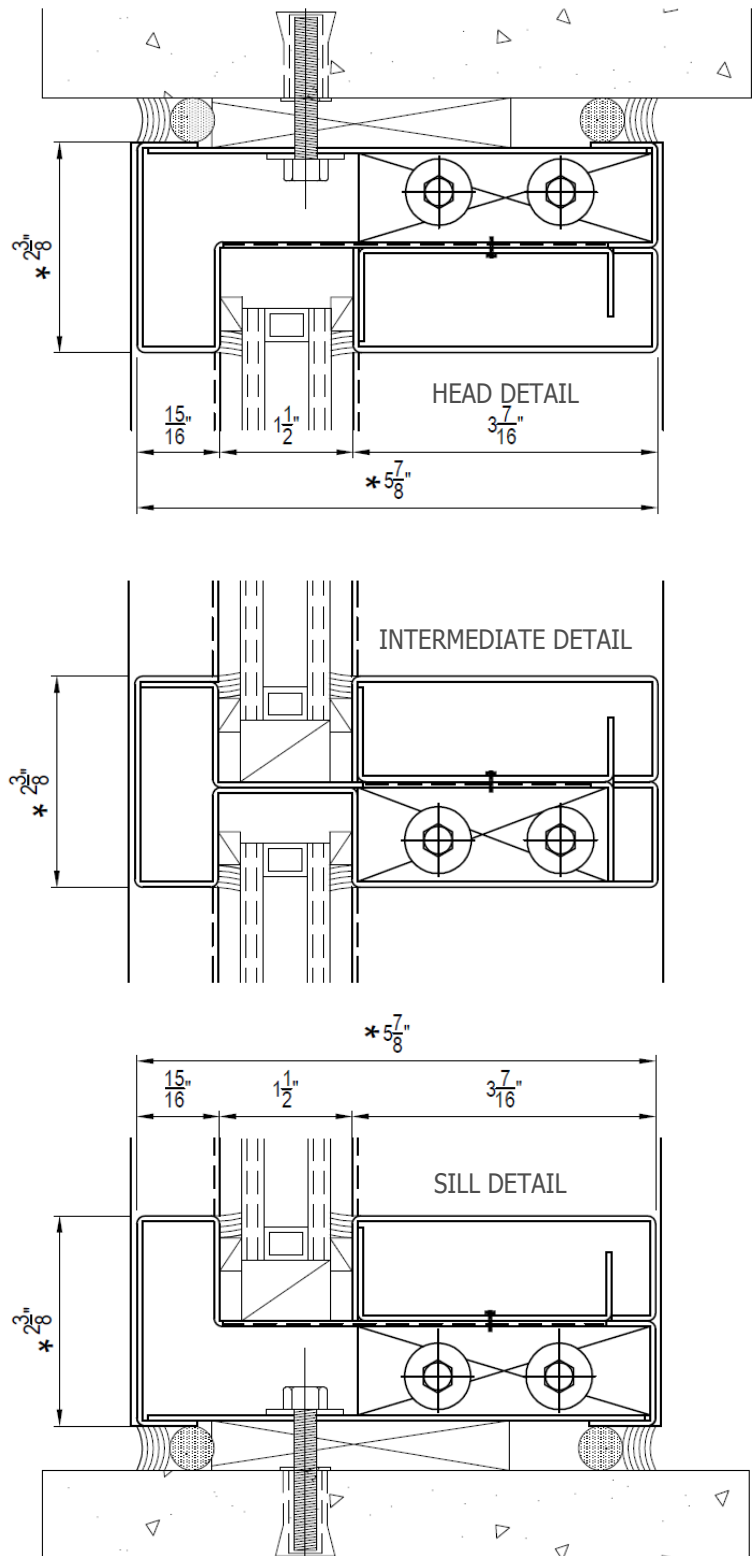
Glass

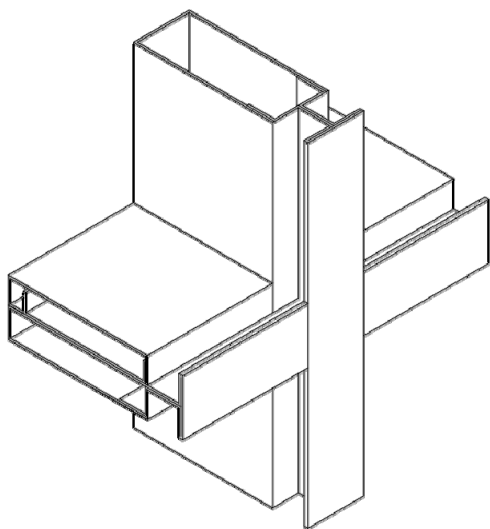
- Allowance for 1/4" to 1" Glass

Finishing

- Factory Finishing Available

For complete details and specifications, please consult online catalog at: www.stilesdoor.com





Features

- L O N G Span Capability
- Integrated Structural Members
- Cold Rolled, A60, Stainless or Bronze
- Modular Design
- Narrow Sight Lines
- FAST Installation
- Interior or Exterior Applications

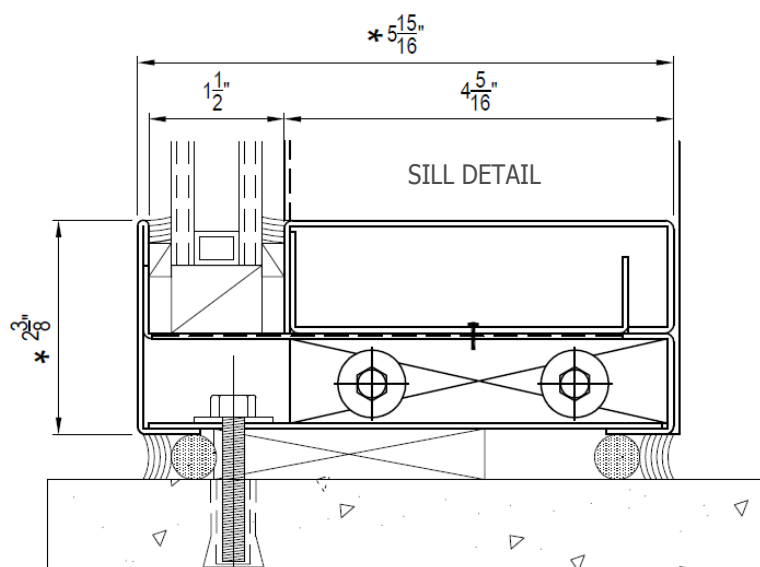
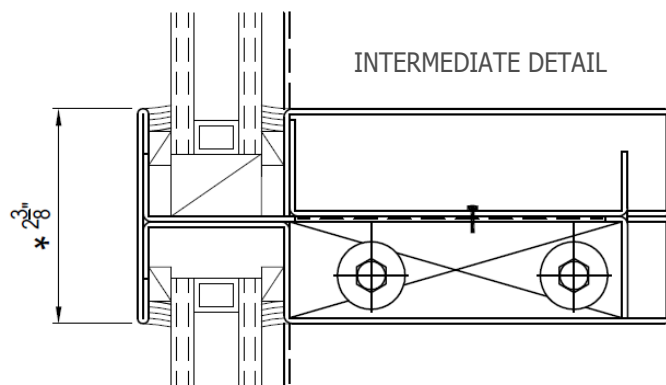
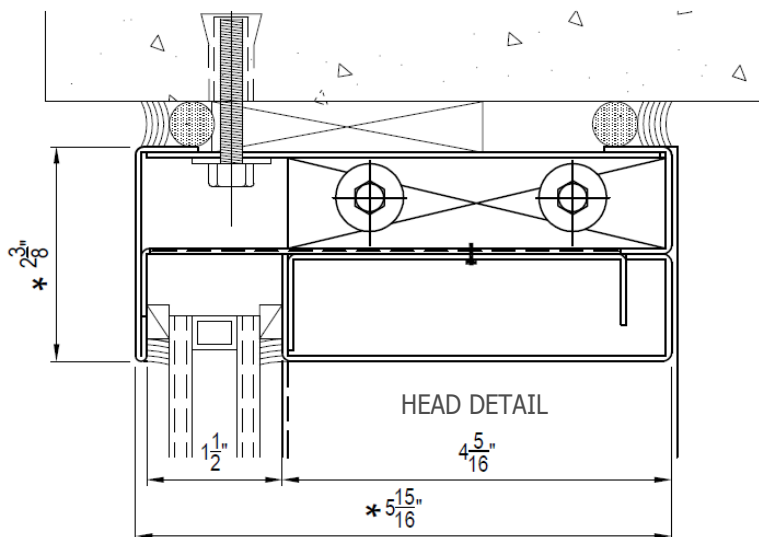
Glass

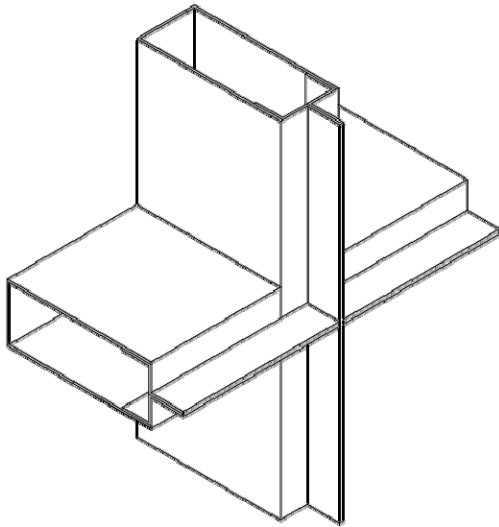
- Allowance for 1/4" to 1" Glass

Finishing

- Factory Finishing Available

For complete details and specifications, please consult
online catalog at: www.stilesdoor.com





Features

- L O N G Span Capability
- Integrated Structural Members
- Cold Rolled, A60, Stainless or Bronze
- Modular Design
- Narrow Sight Lines
- FAST Installation
- Interior or Exterior Applications

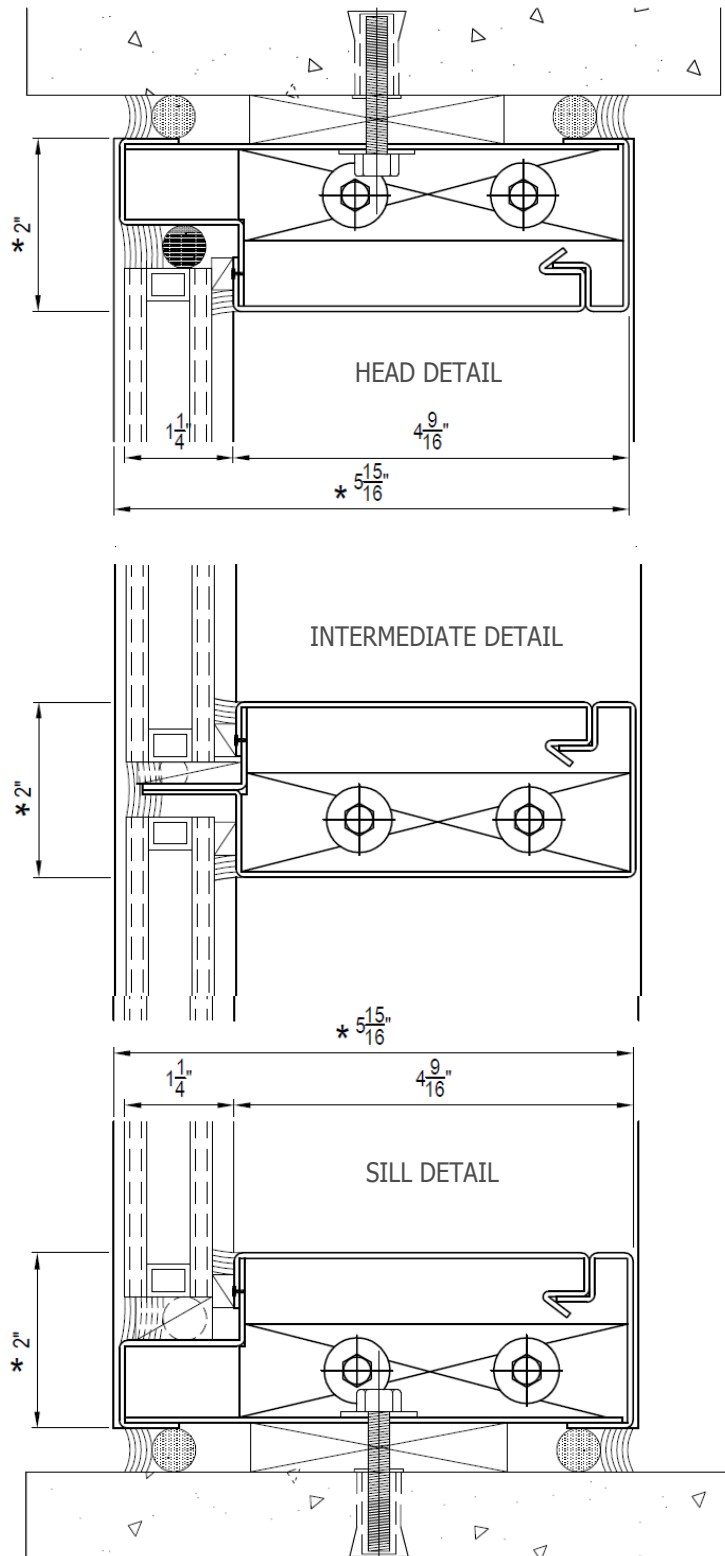
Glass

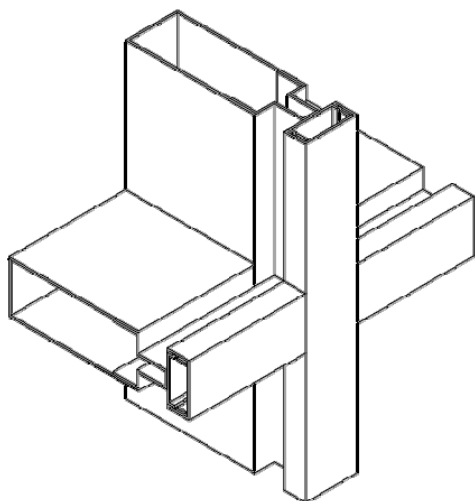
- Allowance for 1/4" to 1" Glass

Finishing

- Factory Finishing Available

For complete details and specifications, please consult online catalog at: www.stilesdoor.com





Features

- L O N G Span Capability
- Integrated Structural Members
- Cold Rolled, A60, Stainless or Bronze
- Modular Design
- Narrow Sight Lines
- FAST Installation
- Interior or Exterior Applications

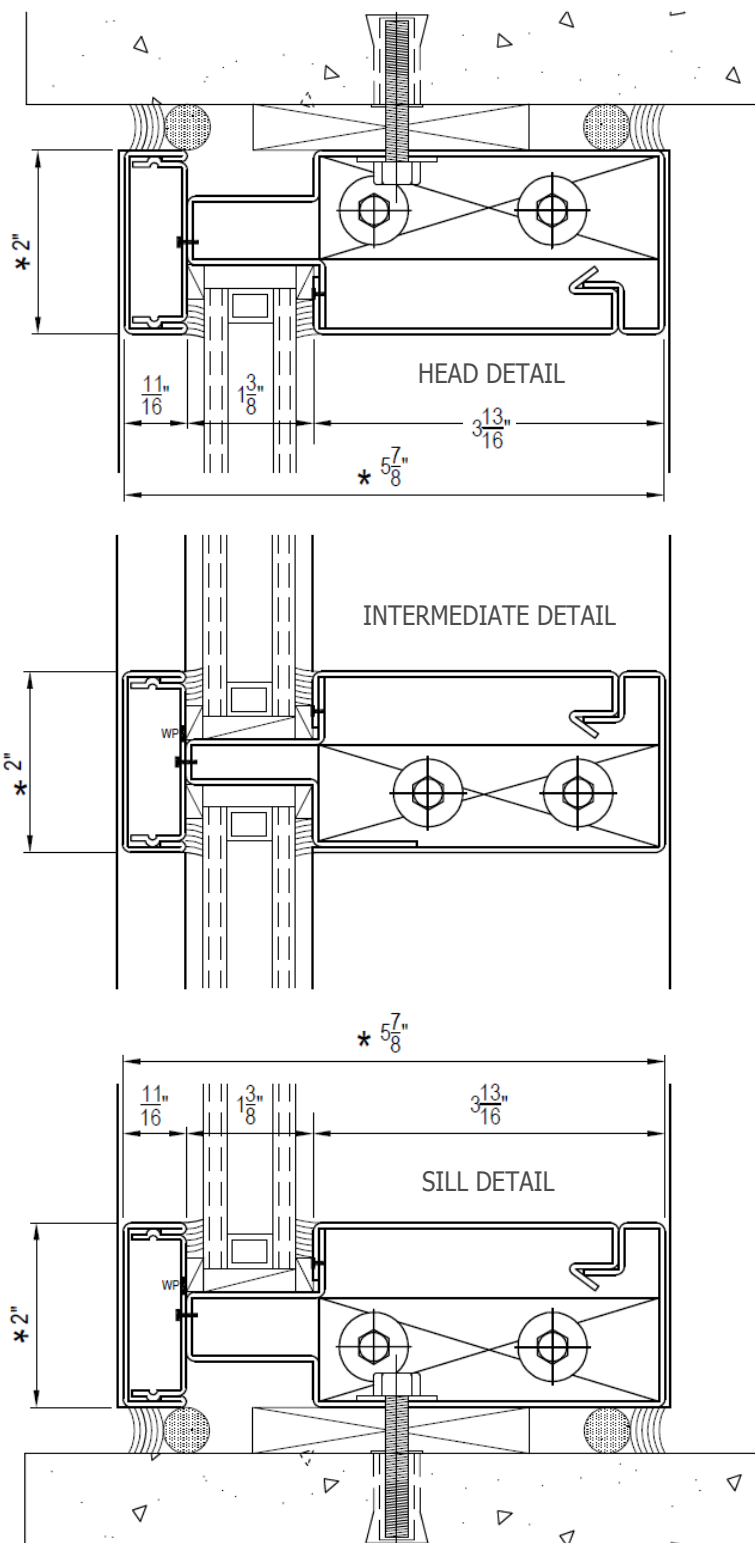
Glass

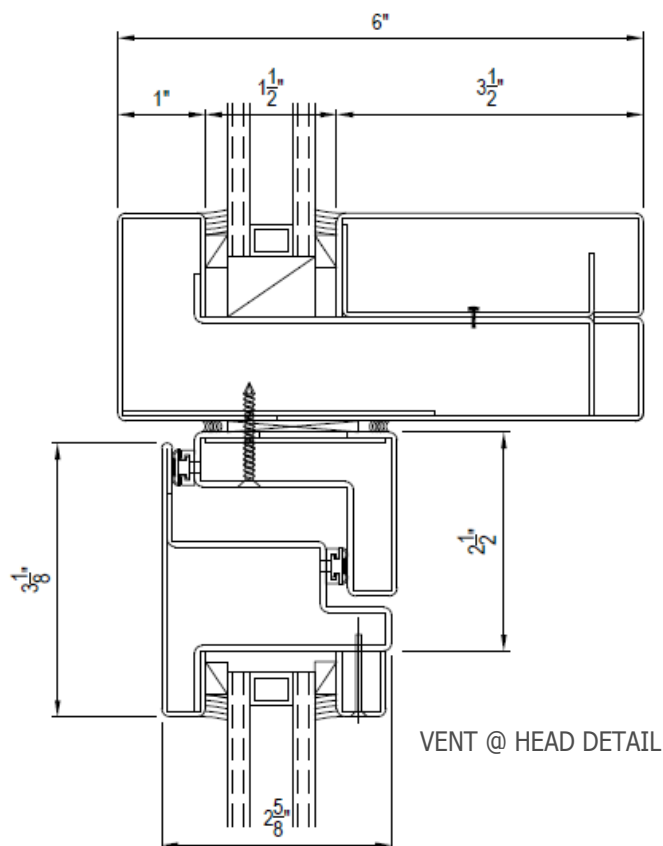
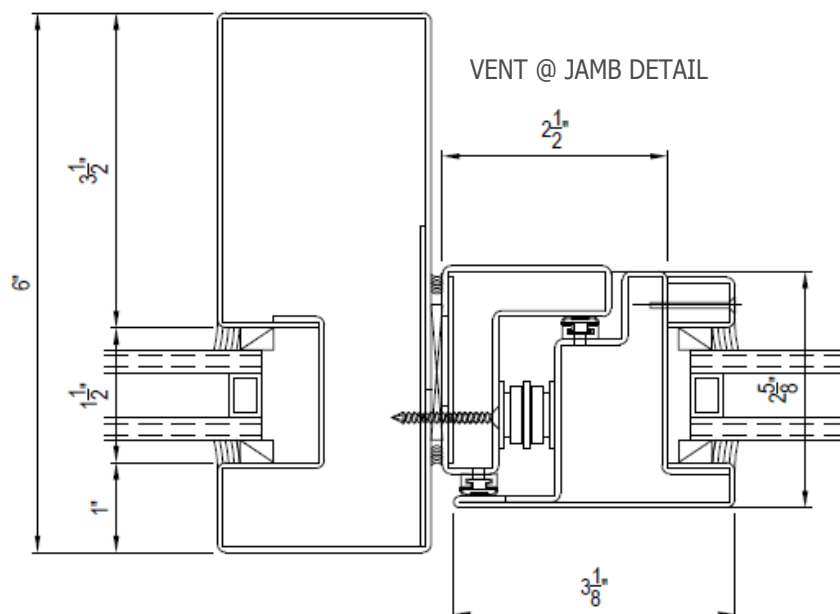
- Allowance for 1/4" to 1" Glass

Finishing

- Factory Finishing Available

For complete details and specifications, please consult online catalog at: www.stilesdoor.com





Features

- Easy Integration into StileLine Systems
- Continuous Welded Construction
- Cold Rolled, A60, Stainless or Bronze
- Proprietary Weather-seal System
- Narrow Sight Lines
- Awnings, Hoppers, and Casements
- Corrosion-resistant Hardware

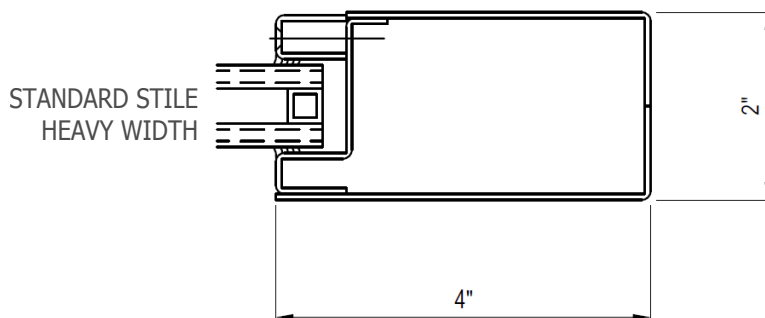
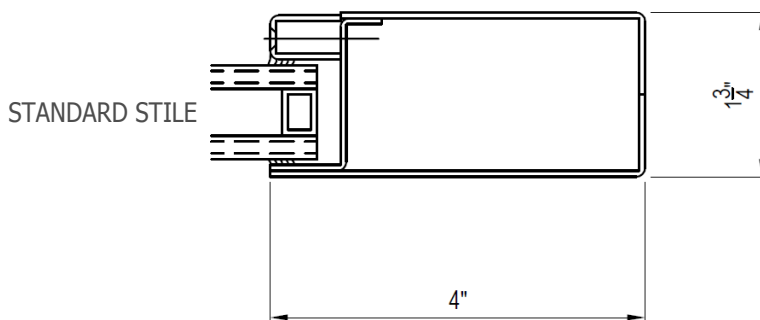
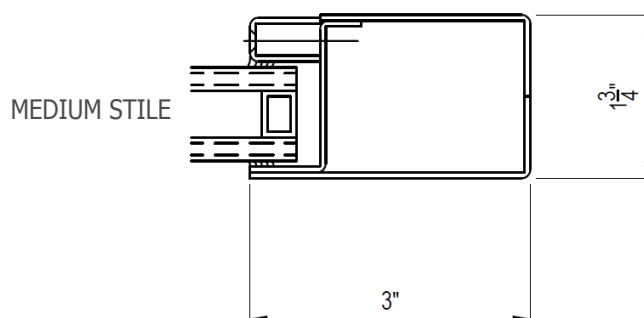
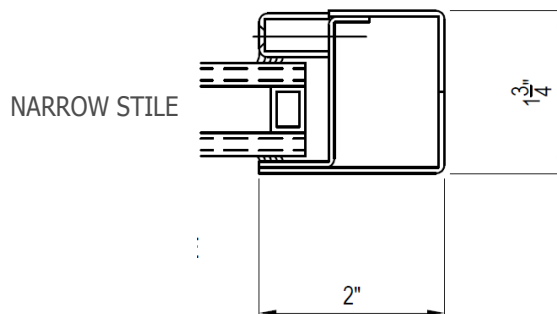
Glass

- Allowance for $\frac{1}{4}$ " to 1" Glass

Finishing

- Factory Finishing Available

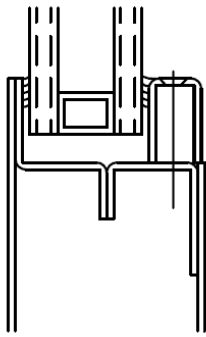
For complete details and specifications, please consult online catalog at: www.stilesdoor.com



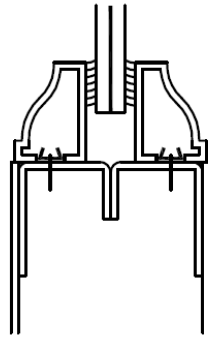
Features

- StileLine entrance doors available in Cold Rolled, A60 Galvanized, Stainless Steel and Bronze (Alloy 464 Naval Brass)
- Seamless construction, 3-4 times stronger than aluminum doors
- Narrow sight lines (special stile and rail sizes available)
- Proprietary Air-Tek door edge weather-seal available.
- Glazing allowance for 1/4" to 1" glass thicknesses
- Factory finishing available,
See [Finish Options, General Section](#)

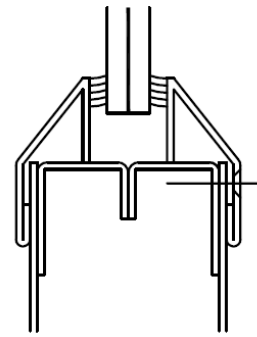
For complete details and specifications, please consult online catalog at: www.stilesdoor.com



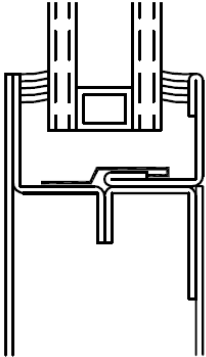
1" IG
WITH SCREW-ON STOP



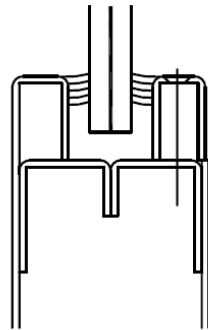
1/4" SINGLE-GLAZED WITH
DECORATIVE STOPS



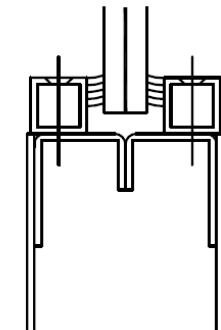
SINGLE-GLAZED WITH
SLOPED VISION FRAME



1" IG
WITH SNAP-ON STOP

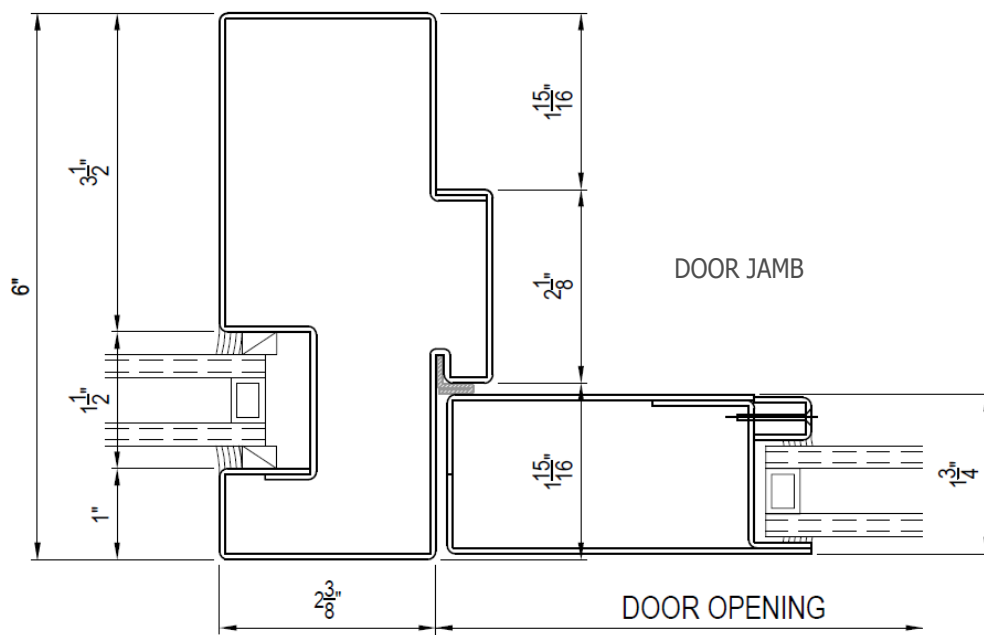


STANDARD GLASS WITH
SCREW-ON STOP



STANDARD GLASS WITH
TUBE STOPS

For complete details and specifications, please consult online catalog at: www.stilesdoor.com



Features

■ StileLine entrance systems available in Cold Rolled, A60 Galvanized, Stainless Steel and Bronze (Alloy 464 Naval Brass)

■ Integrated kerf weather-seal system

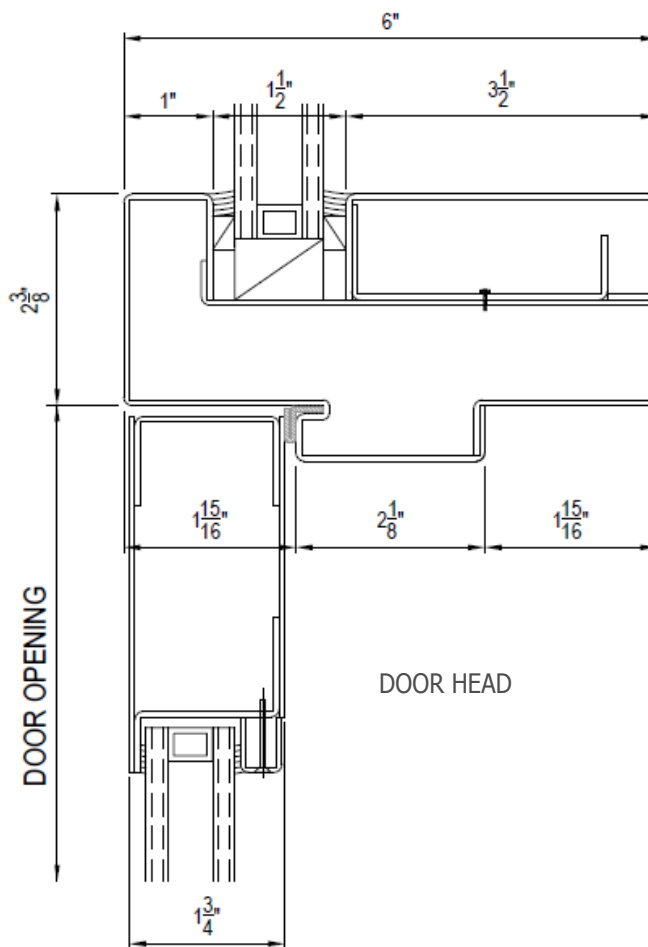
■ Narrow sight lines (special stile and rail sizes available)

■ Proprietary Air-Tek door edge weather-seal available.

■ Glazing allowance for 1/4" to 1" glass thicknesses

■ Factory finishing available,
See [Finish Options, General Section](#)

For complete details and specifications, please consult online catalog at: www.stilesdoor.com





Stiles doors save lives.

Stiles is a national leader in fire ratings and maintains a vast portfolio of options to the architect and builder.










































































































































































































































































































































































































Stiles offers built-to-order fire doors and frames in a large selection of sizes and configurations, providing an affordable alternative to generic fire doors and frames. We have conducted many tests in cooperation with our customers to meet specific requirements.

- Extensive Fire Label Portfolio
- UL and ITS/WH Certified
- UL10B, UL10C Positive Pressure, UL1784 Smoke
- UBC 7.2 (Positive Pressure)
- ASTM E-152
- NFPA 252 & 257
- CAN / ULS S104
- Up to 3 HR fire ratings
- Wood veneer available on select fire rated doors

Section Contents	
Fire Rating Charts for Doors	FR-1.0 - 1.1
Fire Rating Chart for Frames	FR-1.2 - 1.3
Glazing Criteria - Doors	FR-2.0
Glazing Criteria - Windows	FR-2.1
StileLite™ 100 Transparent Wall System	
StileLite™ 100 Features	FW-1.0
StileLite™ 100 Details	FW-1.1-1.2
StileLite™ 100 Glazing Details	FW-1.3
StileLite™ 200 Transparent Wall System	
StileLite™ 200 Features	FW-2.0
StileLite™ 200 Details	FW-2.1-2.2
StileLite™ 200 Glazing Details	FW-2.3

Built to Order.™



Description / Size				Fire Rating				Material			Door Core				Construction									
Door Type		Max. Opening Size (in.)	Single or Pair	3/4 Hour	1 Hour	1-1/2 Hour	3 Hour	18 Gauge	16 Gauge	14 Gauge	Steel Stiffened Core	Honeycomb Core	Temperature Rise Core	Polystyrene Core	Edge Welded	Open Seam	Astragal Required	Cladding	Glass Size per Mfg.	3-3/8" Min. Stiles & Rail (3/4 HR)	6" Min. Stile & Rail (1, 1-1/2, & 3 HR)	10" Min. Bottom Rail	Max. 24 X 24 Listed Louver	
	Flush	48 X 96	S																					
		51 X 108	S																					
		51 X 120	S																					
		60 X 144	S																					
	Dutch Flush	48 X 90	S																					
	Vision Lite	48 x 96	S																					
		51 X 120	S																					
	Half Glass	48 X 96	S																					
		51 X 120	S																					
	Sound Control	51 X 120	S																					
	Laminate	48 X 96	S																					
		51 X 120	S																					
	Full Glass	51 X 120	S																					
	Temp Rise	51 X 108	S																					
		60 X 144	S																					
	Louver	51 X 120	S																					
	Stainless Steel	48 X 96 304 SS	S																					
		51 X 120 430 SS	S																					
	Bullet / Security	51 X 120	S																					
	Recessed Panic	48 X 96	S																					
		51 X 108	S																					










































































































































NOTE: Above door data varies depending on specific design criteria. All Stiles Fire Rated assemblies are built-to-order to your exact specifications. For assistance with design, labeling requirements and multiple integrated features, contact factory. HPL available on all products. Wood veneer available up to 3/4 HR.



Description / Size			Fire Rating				Material			Door Core				Construction									
Door Type		Max. Opening Size (in.)	Single or Pair	3/4 Hour	1 Hour	1-1/2 Hour	3 Hour	18 Gauge	16 Gauge	14 Gauge	Steel Stiffened Core	Honeycomb Core	Temperature Rise Core	Polystyrene Core	Edge Welded	Open Seam	Astragal Required	Cladding	Glass Size per Glass Mfg.	3-3/8" Min. Stile & Rail (3/4 HR)	6" Min. Stile & Rail (1, 1-1/2, & 3 HR)	10" Min. Bottom Rail	Max. 24 X 24 Listed Louver
	Flush (Pair)	96 X 96	PR	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
		102 X 108	PR	■	■	■	■	■	■	■	■		■		■	■		■					
		102 X 120	PR	■	■	■	■	■	■	■	■		■		■	■		■					
		120 X 144	PR	■	■	■		■	■	■	■		■		■	■	■						
	Double Egress	96 X 96	PR	■	■	■	■	■	■	■	■	■	■	■	■	■		■					
		102 X 108	PR	■	■	■	■	■	■	■	■		■		■	■		■					
		102 X 120	PR	■	■	■	■	■	■	■	■		■		■	■		■					
	Vision Lite	96 X 96	PR	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■		
		102 X 120	PR	■	■	■	■	■	■	■	■		■		■	■		■	■	■	■		
	Half Glass	96 X 96	PR	■	■	■		■	■	■	■	■	■	■	■	■		■	■	■	■		
		102 X 120	PR	■	■	■		■	■	■	■		■		■	■		■	■	■	■		
	Sound Control	102 X 120	PR	■	■	■	■	■	■	■					■	■		■	■	■	■		
	Laminate	96 X 96	PR	■	■	■	■	■	■	■		■	■	■	■	■		■	■	■	■		
		102 X 120	PR	■	■	■	■	■	■	■			■		■	■		■	■	■	■		
	Full Glass	102 X 120	PR	■	■	■		■	■	■					■	■		■	■	■	■	■	
	Temperature Rise	102 X 108	PR	■	■	■	■	■	■	■	■		■		■	■		■	■		■	■	
		120 X 144	PR	■	■	■		■	■	■	■				■	■	■						
	Louver	96 X 96	PR	■	■	■		■	■	■	■	■		■	■	■		■					
		102 X 120	PR	■	■	■		■	■	■	■				■	■		■				■	■
	Stainless Steel	84 X 86 304 S/S	PR	■	■	■	■		■		■	■			■	■	■		■	■	■	■	
		102 X 120 430 S/S	PR	■	■	■	■	■	■	■	■		■		■	■			■	■	■	■	
	Bullet / Security	102 X 120	PR	■	■	■	■		■	■	■				■	■		■	■	■	■	■	
	Recessed Panic	96 X 96	PR	■	■	■	■	■	■	■	■	■	■	■	■	■		■	■	■	■	■	
		102 X 108	PR	■	■	■	■	■	■	■	■		■		■	■		■	■	■	■	■	
		102 X 120	PR	■	■	■	■	■	■	■	■				■	■		■	■	■	■	■	










NOTE: Above door data varies depending on specific design criteria. All Stiles Fire Rated assemblies are built-to-order to your exact specifications. For assistance with design, labeling requirements and multiple integrated features, contact factory. HPL available on all products. Wood veneer available up to 3/4 HR.



Description / Size			Fire Rating										Materials & Const.					Limitations						
Frame Dimension		Max. Door Size (in.)	Single or Pair	Max. Overall Width	Max. Overall height	Max. Panel Width	Max. Panel Height	20 Minute	3/4 Hour	1 Hour	1-1/2 Hour	3 Hour	16 Gauge	14 Gauge	12 Gauge	Welded	Stainless Steel	Seal-Tek™ Profile	Min. Throat Size	Max. Throat Size	Min. Face Width	Max. Face Width	Max Head Height	Max. Sill Height
	Single Frame	51 X 120	S																2	13	1⅝	6	6	
		60 X 144	S																2	13	1⅝	6	6	
	Dutch	48 X 90	S																2	13	1⅝	6	6	
	Sound Control	51 X 120	S																2	13	1⅝	6	6	
	Smoke Profile	51 X 120	S																2	13	1⅝	6	6	
	Multi Opening	51 X 120	S																2	13	1⅝	6	6	
	Transom (Flush Panel)	48 X 120	S			48	54												3½	13	1⅝	4	4	
	Transom	48 X 120	S			48	54												3½	13	1⅝	4	4	
	StileLite™ Wall Systems	Pyrobel 60 Glass																	3½	13	1⅝	4	4	
	Sidelite	51 X 120	S	174	122	48	48												3½	13	1⅝	4	4	12
	Sidelite	51 X 120	S	174	144	48	48												3½	13	1⅝	4	4	12
	Window			174	144	48	48												3½	13	1⅝	4	4	12
	Picture Window					48	48												3½	13	1⅝	4	4	12

NOTE: Above frame data varies depending on specific design criteria.
 All Stiles Fire Rated assemblies are built-to-order to your exact specifications.
 For assistance with design, labeling requirements and multiple integrated features, contact factory.



Description / Size				Fire Rating										Materials & Const.					Limitations					
Frame Dimension		Max. Door Size (in.)	Single or Pair	Max. Overall Width	Max. Overall height	Max Panel Width	Max. Panel Height	20 Minute	3/4 Hour	1 Hour	1-1/2 Hour	3 Hour	16 Gauge	14 Gauge	12 Gauge	Welded	Stainless Steel	Seal-Tek™ Profile	Min. Throat Size	Max. Throat Size	Min. Face Width	Max. Face Width	Max Head Height	Max. Sill Height
	Pair Frame	102 X 120	PR					■	■	■	■	■	■	■	■	■	■	■	2	13	1⅝	6	6	
		120 X 144	PR					■	■	■	■	■	■	■	■	■	■	■	2	13	1⅝	6	6	
	Double Egress	102 X 120	PR					■	■	■	■	■	■	■	■	■	■		2	13	1⅝	6	6	
	Sound Control	102 X 120	PR					■	■	■	■	■	■	■	■	■	■		2	13	1⅝	6	6	
	Smoke Profile	120 X 120	PR					■	■	■	■	■	■	■	■	■	■		2	13	1⅝	6	6	
	Multiple Opening	102 X 120	PR	174	122			■	■	■	■	■	■	■	■	■	■	■	2	13	1⅝	6	6	
	Transom Flush Panel	96 X 120	PR			96	54	■	■	■	■		■	■	■	■	■	■	3½	13	1⅝	4	4	
	Transom	96 X 120	PR			96	54	■	■	■	■		■	■	■	■	■	■	3½	13	1⅝	4	4	
	Sidelite	102 X 120	PR	174	122	48	48	■	■	■	■		■	■	■	■	■	■	3½	13	1⅝	4	4	12
	Sidelite	120 X 120	PR	174	144	48	48	■	■	■	■		■	■	■	■	■	■	3½	13	1⅝	4	4	12

NOTE: Above frame data varies depending on specific design criteria.
 All Stiles Fire Rated assemblies are built-to-order to your exact specifications.
 For assistance with design, labeling requirements and multiple integrated features, contact factory.

After extensive and persistent testing over the last 3 decades, Stiles has become a ground-breaking industry leader in developing technology for 20, 45, 60, 90 minute, and 3 hour fire rated doors, windows, sidelites, and storefront systems. We also offer a unique 60-minute Transparent Wall System. This section has been developed to assist the architect, designer, and building owner in the creation of large, inspiring window systems for buildings where fire rated criteria is required.

Because of our extensive testing, Stiles offers you the flexibility of installing virtually any glass manufacturer's fire rated glass into our products. Therefore, we are no longer required to test glass products from each individual manufacturer.

There are two primary parameters to comply with when designing fire rated doors, sidelites, and windows:

1. The maximum overall door and frame sizes that can be fire rated by Stiles are as follows:

- a) Frames: 174" X 144"
- b) Single Doors: 51" X 120"
- c) Door Pairs: 102" X 120"
- d) Transparent Wall System: No Size Limit

2. The maximum clear view glass area that can be fire rated at each individual glass opening

See [fire rating charts for specific information](#)

This Fire Rated Glazing Criteria has been compiled in part by specifications directly from various glass manufacturers. Stiles assumes no responsibility for the accuracy of glass information provided by others. It is recommended that the application of specific glass products be obtained directly from individual manufacturers. All glass must be installed in accordance with manufacturer's installation instructions. As always, our experienced engineers are available to assist you at any time.

Fire Rated Glass & Glazing Criteria for Doors

Glass Type	Thickness	Max Width	Max Height	Max Sq In	GLASS BRAND
3/4 Hour Fire Rated Doors with Glass					
Wire Glass	.25"	30"	90"	2,019	Multiple
Wire Glass (Glazed with intumescent tape)	.25"	34"	84"	2,856	Multiple
Ceramic Glass	.187	36"	89"	3,205	FireLite®
Laminated Glass	.625" - 1.37"	87.625"	87.625"	3,855	Pyrobel®
Gel-Filled Glass	.75"	124.25"	124.25"	4,952	SuperLite®
1 Hour Fire Rated Doors with Glass					
Ceramic Glass	.187	36"	89"	3,204	FireLite®
Laminated Glass	1" - 1.875"	87.625"	87.625"	3,855	Pyrobel®
Gel-Filled Glass	1.125"	124.25"	124.25"	4,952	SuperLite®
1-1/2 Hour Fire Rated Doors with Glass					
Ceramic Glass	.187"	36"	56.5"	2,034	FireLite®
Laminated Glass	1.375" - 2.125"	36"	61"	2,196	Pyrobel®
Gel-Filled Glass	1.5"	124"	124"	4,876	SuperLite®
3 Hour Doors with Glass					
Ceramic Glass	.187"	12"	33"	100	FireLite®

NOTE: The information in the above chart represents generalized guidelines in effect at time of publication of this guide. Consult factory for specific requirements and updates.

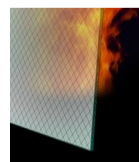
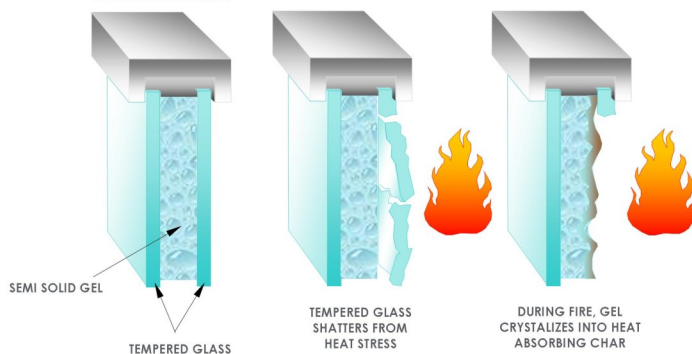
Fire Rated Glass & Glazing Criteria for Windows and Sidelites

20 Minute & 3/4 Hour Windows and Sidelites					
GLASS TYPE	THICKNESS	MAX WIDTH	MAX HEIGHT	MAX SQ IN	GLASS BRAND
Wire Glass	.25"	54"	54"	1,296	Multiple Brands
Wire Glass (Glazed with intumescent tape)	.25"	106"	106"	4,704	Multiple Brands
Ceramic Glass	.187"	106.5"	106.5"	6,396	FireLite®
3/4 Hour Windows and Sidelites					
Wire Glass	.25"	54"	54"	1,296	Multiple Brands
Wire Glass (Glazed with intumescent tape)	.25"	106"	106"	4,704	Multiple Brands
Ceramic Glass	.187"	95"	95"	3,325	FireLite®
Laminated Glass	.625" - 1.37"	96"	96"	3,154	Pyrobel®
Gel-Filled Glass	.75"	124.25"	124.25"	4,952	SuperLite®
1 Hour Windows and Sidelites					
Ceramic Glass	.187"	95"	95"	3,325	FireLite®
Laminated Glass	1" - 1.875"	93"	93"	3,855	Pyrobel®
Gel-Filled Glass	1.125"	124.25"	124.25"	4,952	SuperLite®
1-1/2 Hour Windows and Sidelites					
Ceramic Glass	.187"	56.5"	56.5"	2,627	FireLite®
Laminated Glass	1.375" - 2.125"	83.5"	83.5"	3,463	Pyrobel®
Gel-Filled Glass	1.5"	124"	124"	4,876	SuperLite®

Gel Filled Glass

HOW GEL-FILLED GLASS WORKS

© Stiles Custom Metal, Inc.



Wire Glass

Wire glass is a fire-rated and impact safety-rated glazing material. It is listed for use in doors, sidelites, transoms and borrowed lites with various fire ratings.



Fire-Resist Laminated Glass

Clear laminated fire-resistant safety glass is made up of multiple layers of glass designed for integrity -only fire protection, and insulation against radiant heat transfer.



Ceramic Glass

Ceramic glass is a fire-rated and impact safety-rated glazing material. It is listed for use in doors, sidelites, and transoms with various fire ratings.

StileLite™ 100 Transparent Wall System

60 Minute - 250° Temperature Rise Hollow Metal Transparent Wall System

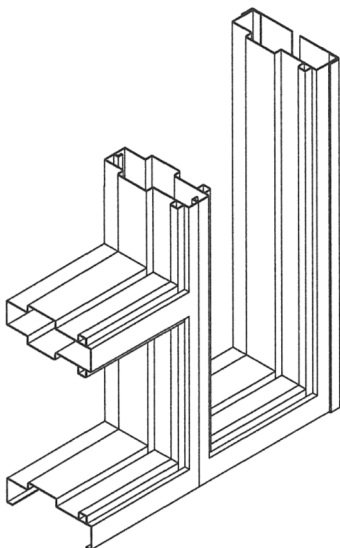
StileLite™ is a temperature rise, fire rated framing system for 60-minute transparent walls, offering a narrow 1-7/8" profile for a floor to ceiling continuous glazed wall. The frame comes in preassembled modules which interlock to provide quicker and easier installations. And since it matches other standard hollow metal frames in looks, there will be no mismatching of frame types in the building.

60-Minute Rated doors glazed with Pyrobel® 60-25 from Interedge Technologies, a clear fire and safety rated glass with a maximum temperature rise of 450 degrees F, can be incorporated into the StileLite™ system. Doors are available as singles or pairs, and can be factory primed, finish painted with Tnemec paint, powder coated, or clad in stainless steel, all without affecting the fire rating.

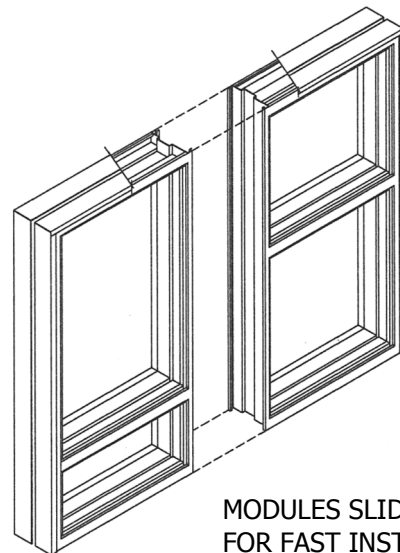
StileLite™ 100 Features

- 60-minute, 250 degree temperature rise hollow metal transparent wall system
- Unlimited number of modules with each module up to 49-7/8" wide
- All frames 14 gauge steel
- Jamb size from 4-3/4" to 14" / Standard 5/8" high glass stops
- Opening size of each opening can be up to 4080 sq. in. while not exceeding 48" wide and 85" high
- Visible glass area of each opening can be up to 3,916 sq. in., not exceeding 46-3/4" x 83-3/4"
- Multiple Tnemec factory paint finishes and powder coating available
- Can be manufactured from cold-rolled, galvanized, or No. 4 stainless steel
- Doors up to 48" wide (96" pairs) x 108" high
- Finishing options for doors include: wood grain stainable steel, plastic laminate, factory-finished wood veneer, stainless steel, powder coating, and finish paint

NOTE: The StileLite™ system complies with the following standards:
 UBC 7-1 (1997), ASTM E119 (2000), NFPA 251 (1999), UL 263 (1997), and CANULC S101 M89 (1989)



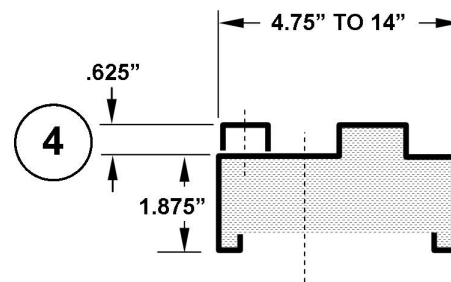
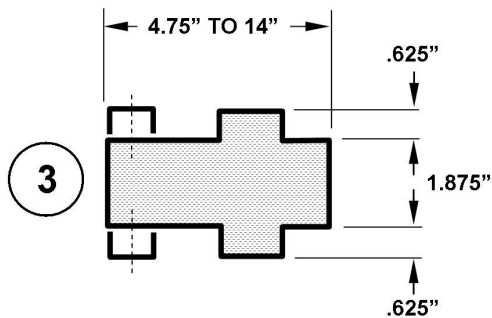
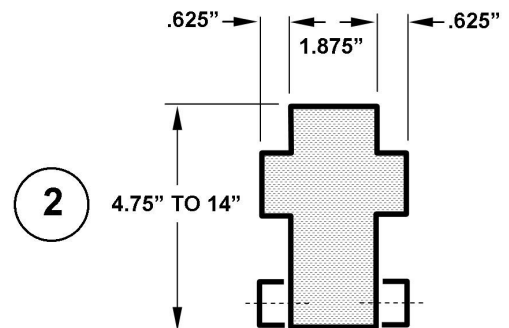
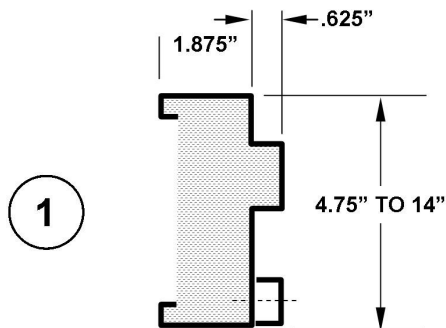
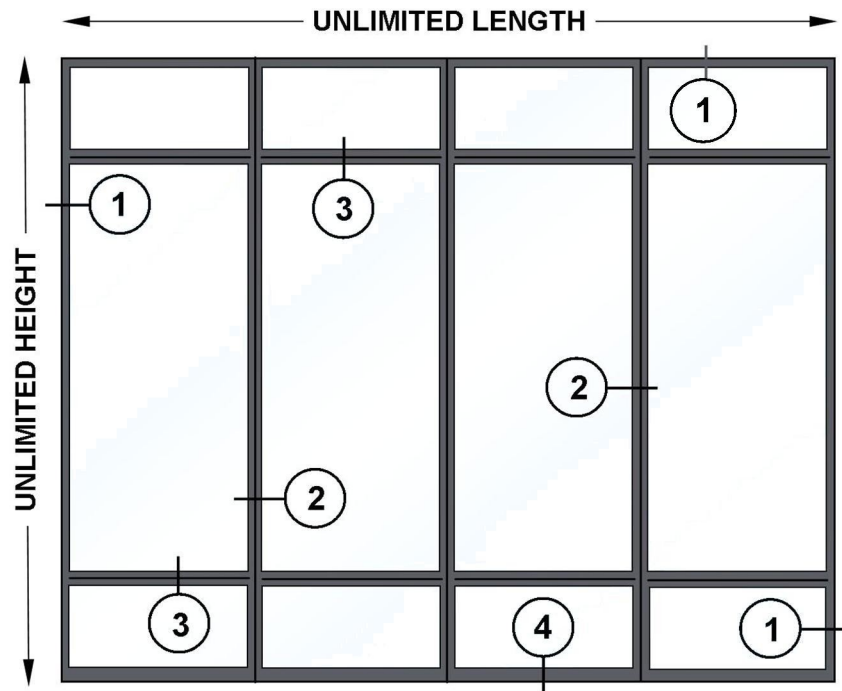
FRAMES CONSIST OF
STANDARD HOLLOW
METAL PROFILES



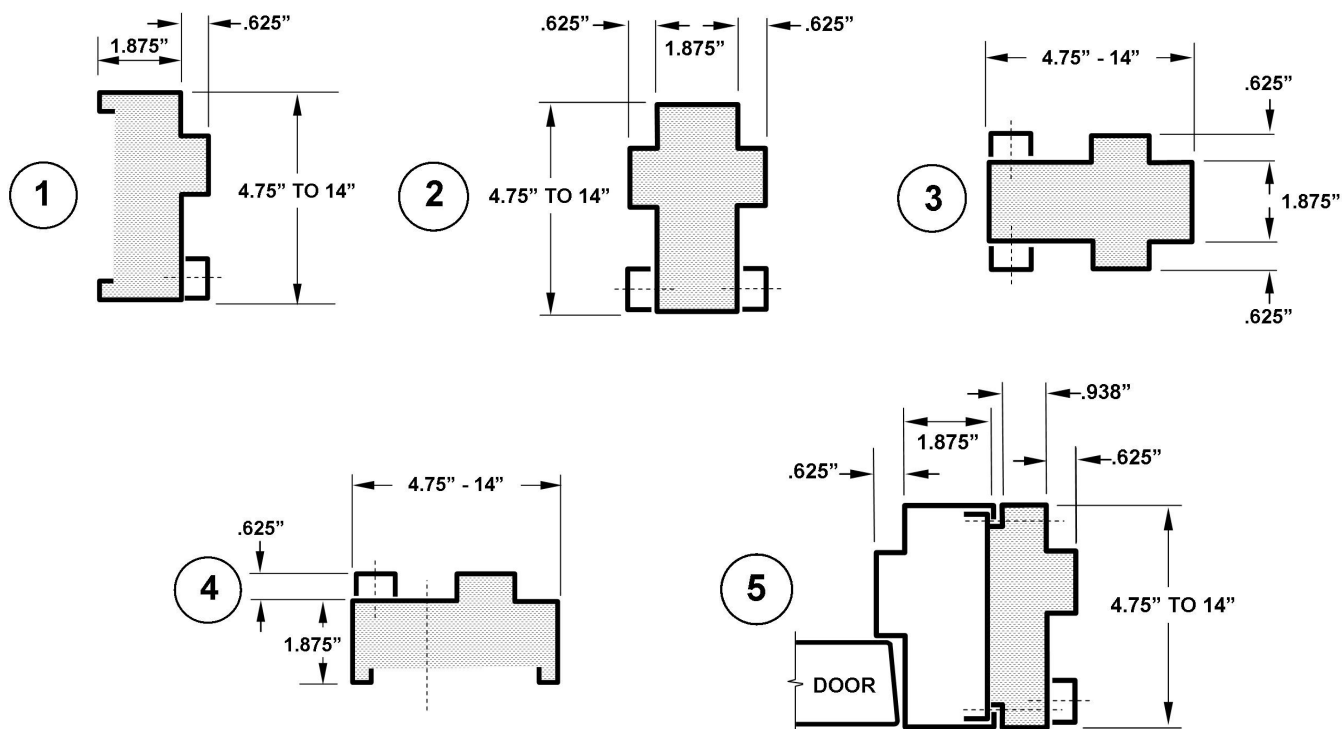
MODULES SLIDE TOGETHER
FOR FAST INSTALLATION

StileLite™ 100 Transparent Wall System

60 Minute - 250° Temperature Rise Hollow Metal Transparent Wall System

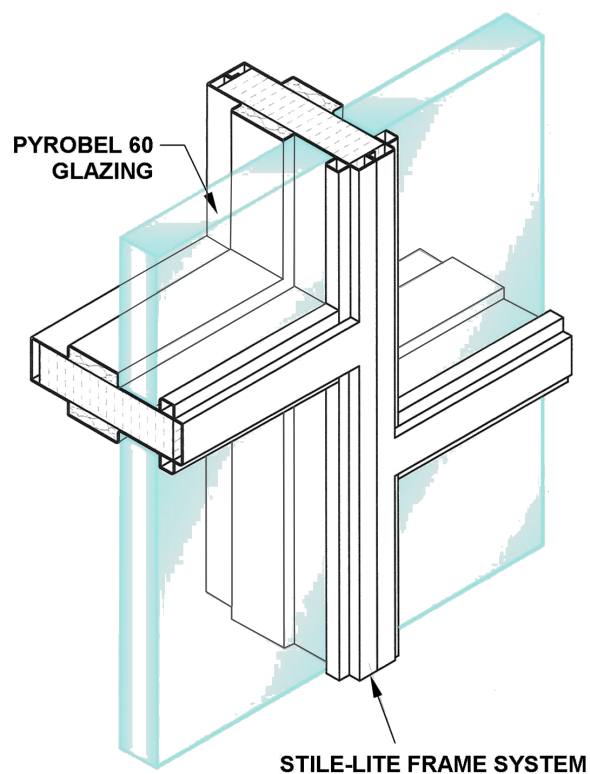
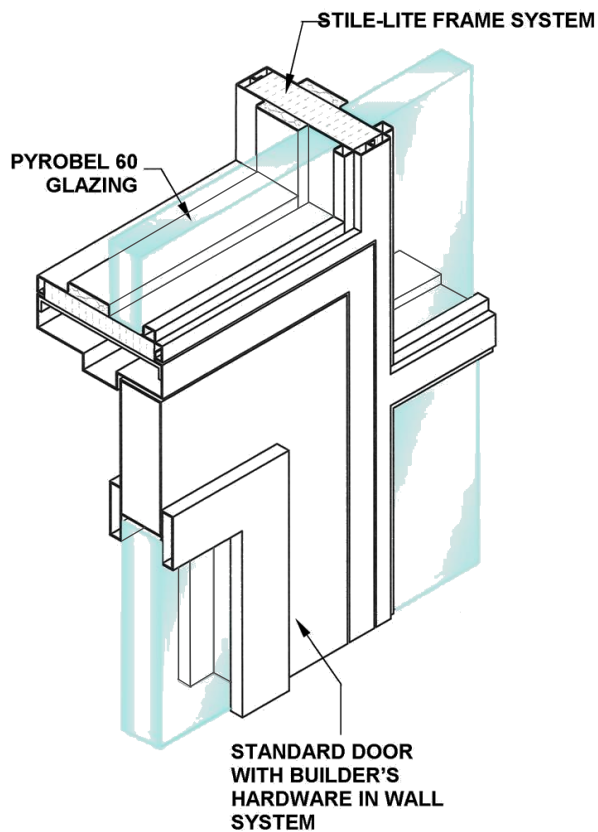


60 Minute - 250° Temperature Rise Hollow Metal Transparent Wall System



StileLite™ 100 Transparent Wall System

60 Minute - 250° Temperature Rise Hollow Metal Transparent Wall System
with Standard Door & Frame



Stile-Lite 200 is a 250 degree temperature rise, fire rated framing system for 2 hour transparent walls tested to ASTM E119. The frames are manufactured in preassembled modules which interlock to provide quicker and easier installations. Any glazing manufacturer's tested and listed glass that meets the rating criteria can be installed into the Stile-Lite system.

Standard 1 3/4" thick fire rated doors can be installed into the Stile-Lite system. Doors are available as singles or pairs and can be prepped for any fire rated hardware. They can also be factory primed, finish painted with Tnemec paint, powder coated or clad in stainless steel, all without compromising the fire rating.

Stile-Lite Features:

- 2 Hour 250 degree temperature rise hollow metal transparent wall system

- Unlimited number of modules

- All Frames are 14 gauge steel

- Jamb sizes can vary up to 14"

- Multiple Tnemec factory paint finishes and powder coat coatings available

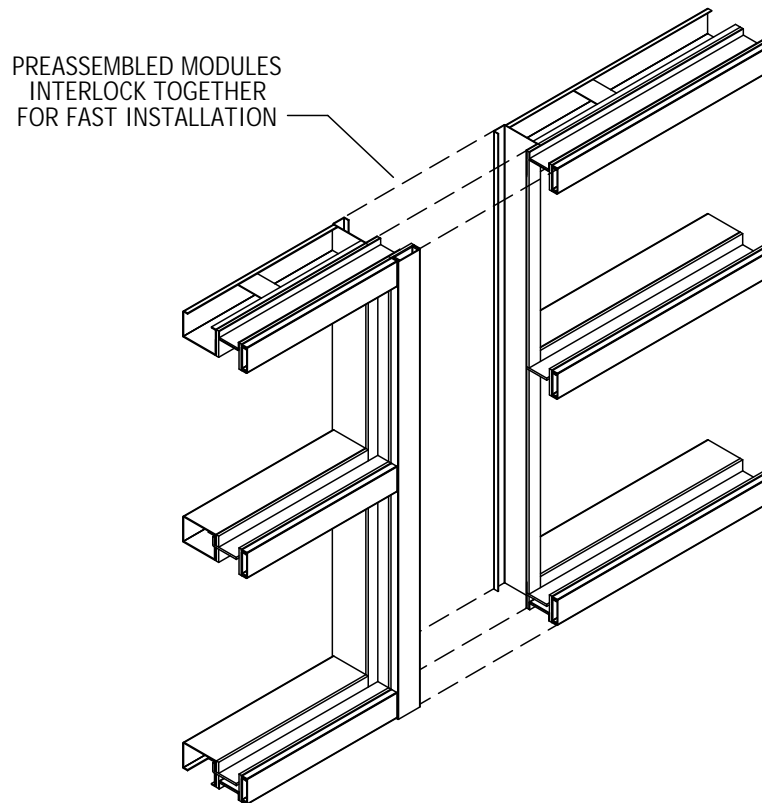
- Can be manufactured from cold roll, galvanized or #4 stainless steel.

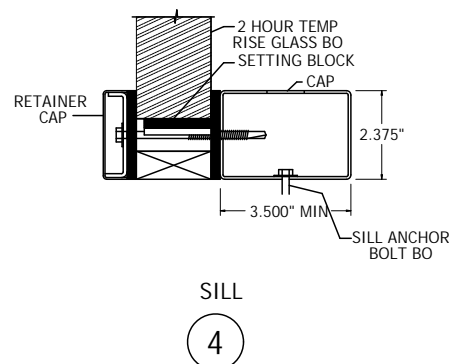
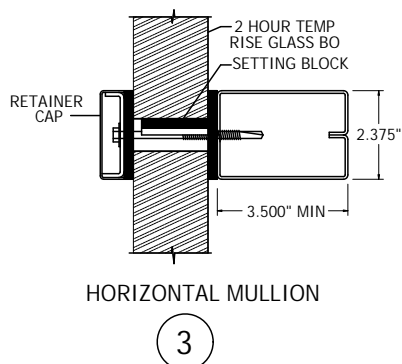
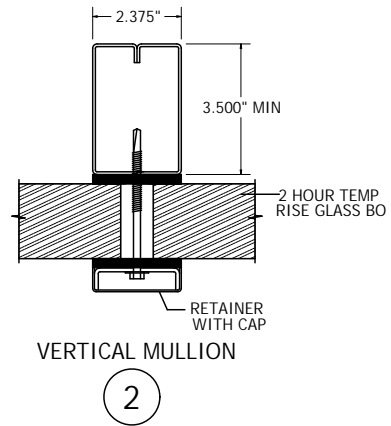
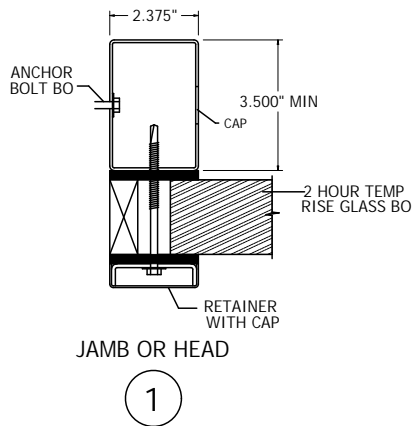
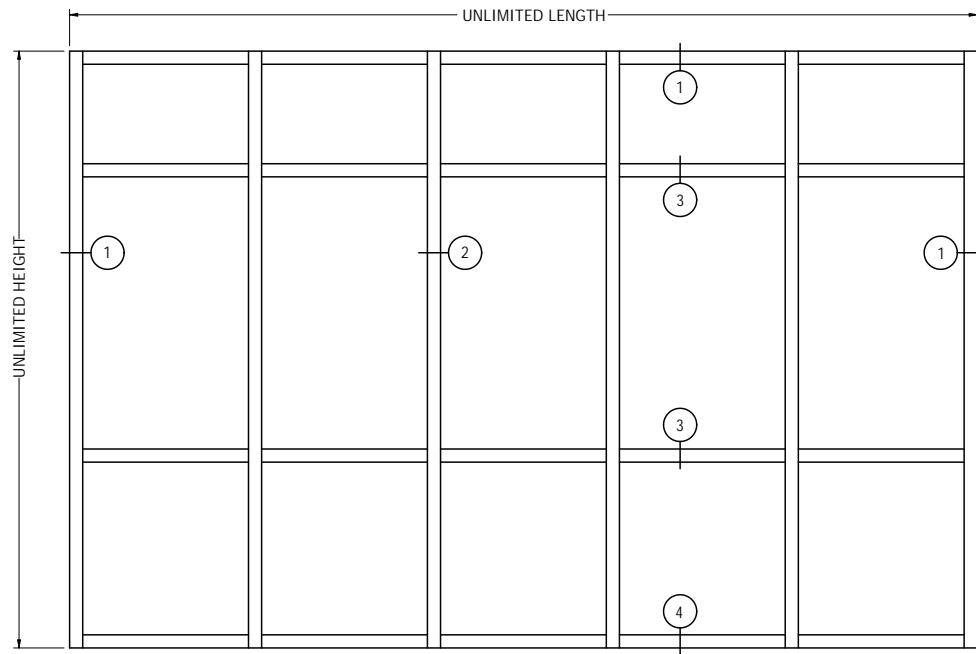
- Doors up to 48" wide (96" pairs) X 108" high

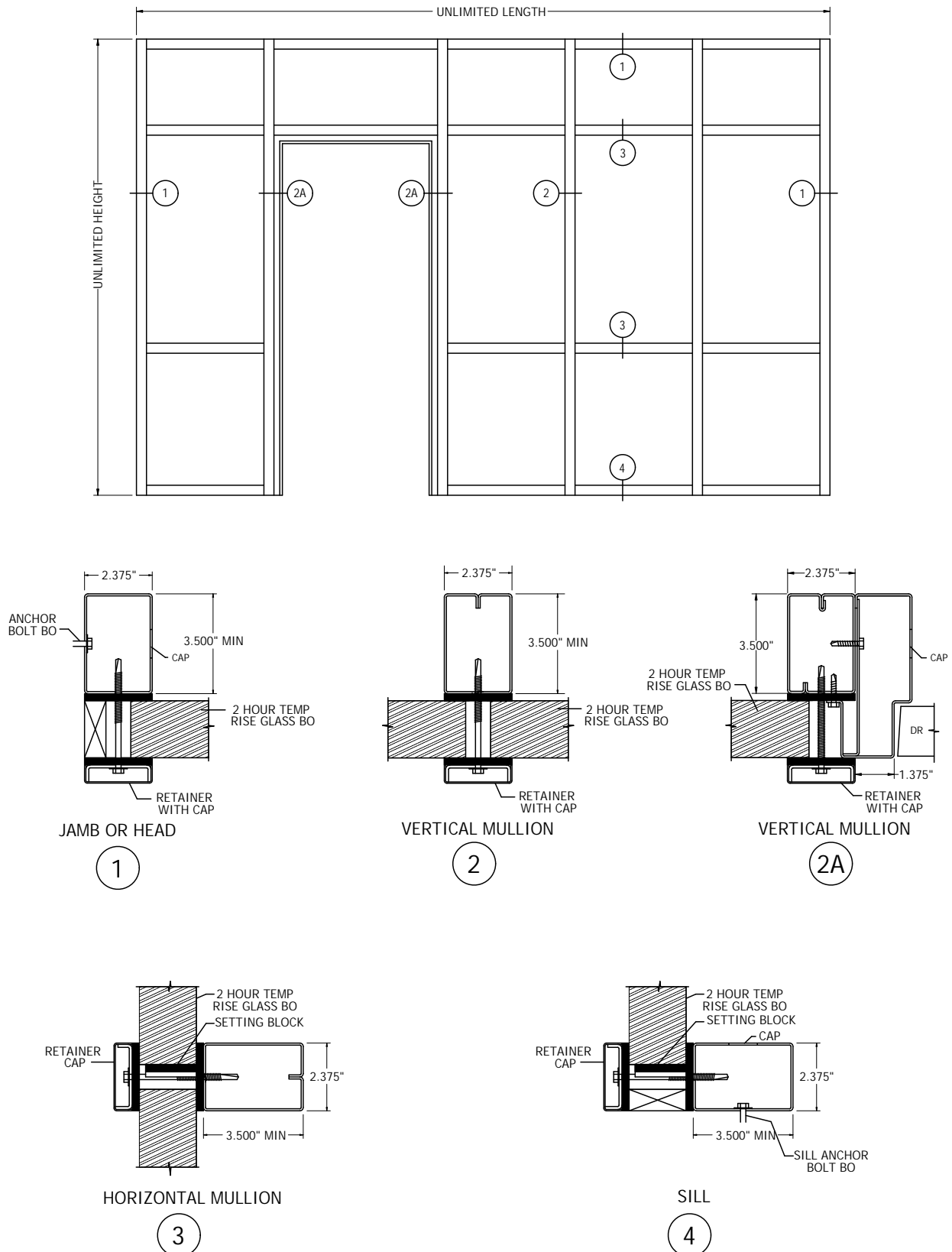
- Finishing options for doors include plastic laminate, stainless steel, powder coating and finish paint.

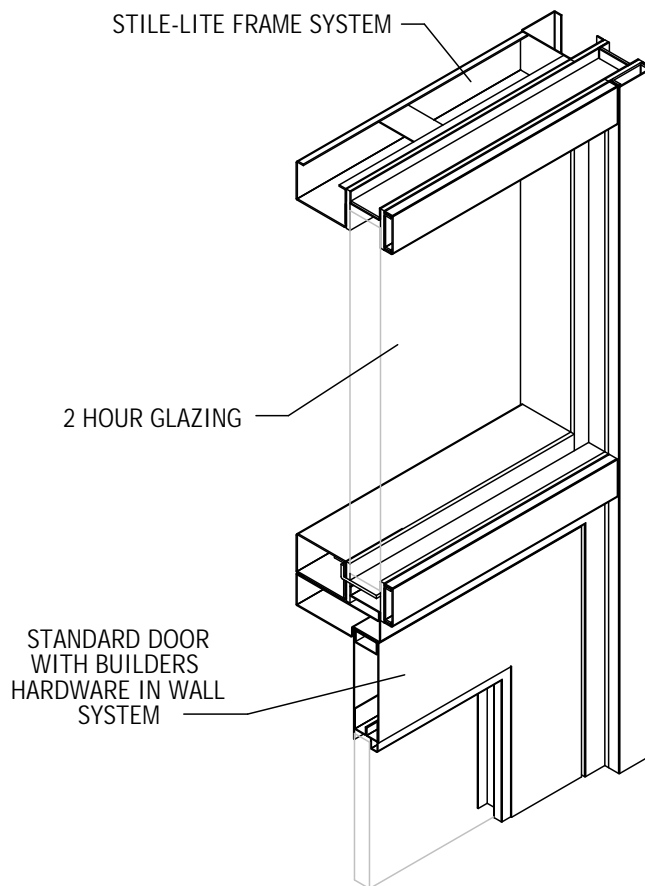
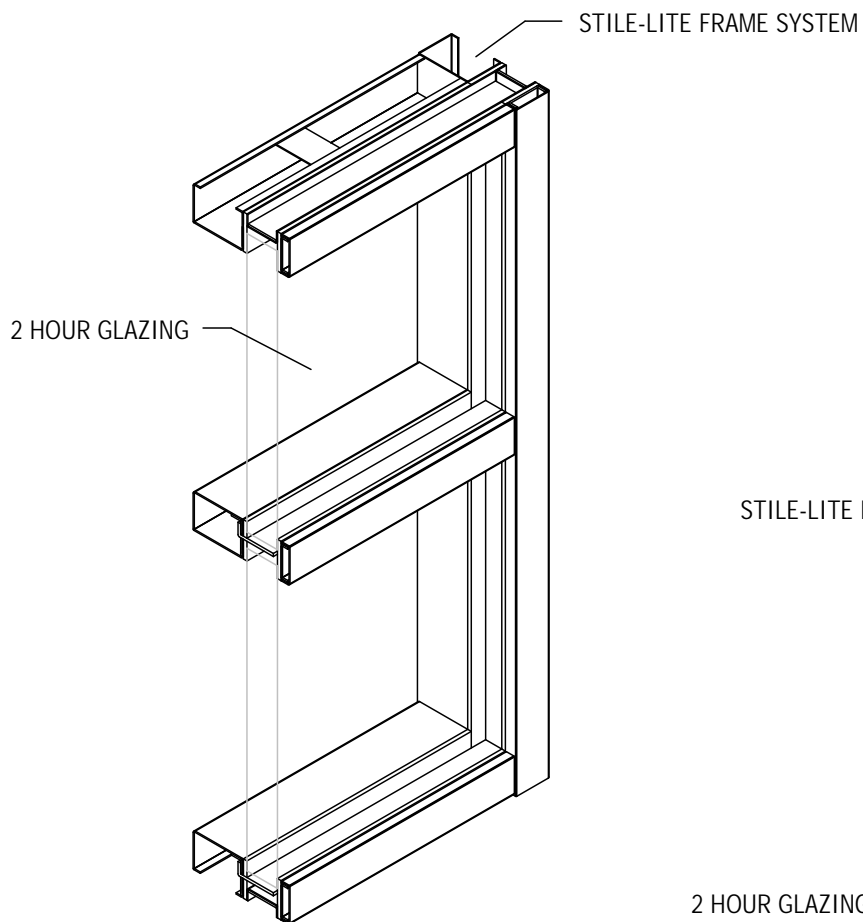
The Stile-Lite system complies with the following standards:

UBC 7-1, ASTM E119, NFPA 251, NFPA 252, UL 263, CANULC S101 M89











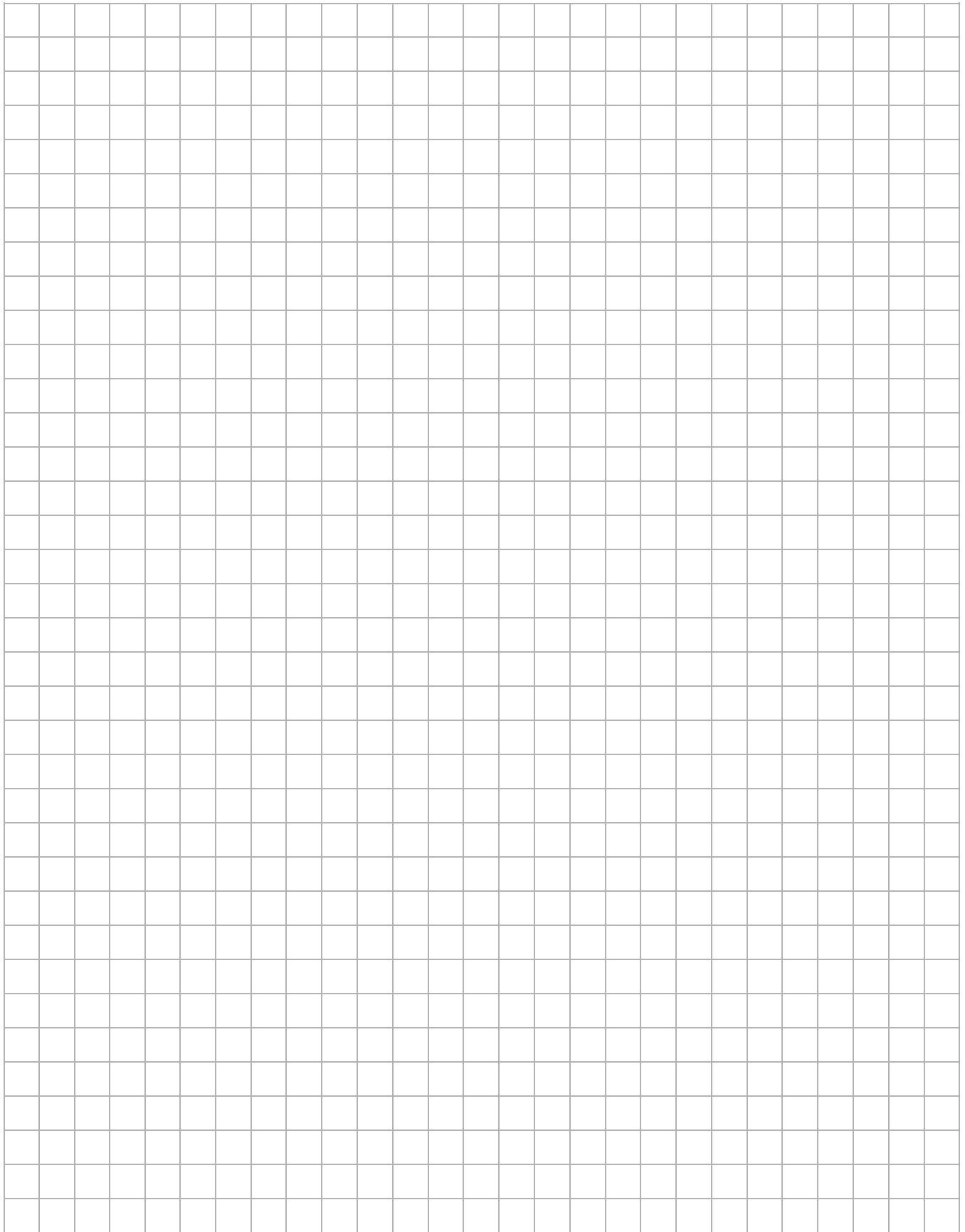
The following Door Selection Tool is provided to assist you in selecting the right door for your specific building application. As always, further assistance is available from our experienced engineering and estimating teams.

Section Contents

Churches	DS-1.0
Colleges & Universities	DS-1.1
Commercial, Office, & Retail	DS-1.2
Entertainment	DS-1.3
Food Processing	DS-1.4
GSA / DOD / Military	DS-1.5
Health Care	DS-1.6
Hotels	DS-1.7
Industrial	DS-1.8
Multi-Unit Housing	DS-1.9
Pharmaceutical & Hi-Tech Labs	DS-1.10
Public & Municipal Buildings	DS-1.11
Schools - K thru 12	DS-1.12
Transportation	DS-1.13

Built to Order.™

Notes





Bel Air Presbyterian Church, Los Angeles, CA

Recommended Doors For: Churches

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Churches + Cathedrals
- Temples
- Chapels
- Funeral Homes

Buildings in the this category include:		DOOR TYPE						MATERIAL				EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Lab-Tek™	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	A60 Galvanized	Stainless Steel	Bronze	Welded Seamless
<div><div></div> Churches + Cathedrals</div> <div><div></div> Temples</div> <div><div></div> Chapels</div> <div><div></div> Funeral Homes</div>													
LOCATION	CONSIDERATIONS												
Auditoriums	Durability + Aesthetics	H	■			■	■	16 GA		■	■		■
Child Care	Sound + Durability	M				■		16 GA	■		■		■
Classrooms	Sound + Aesthetics	M				■		16 GA	■		■		■
Equipment Rooms	Sound + Fire	L	■			■		18 GA	■			■	
Food Service	Impact + Sanitation	H	■		■		■	16 GA	■		■		■
Main Entrances	Durability + Aesthetics	H	■			■	■	16 GA		■	■	■	■
Offices / Counseling	Sound + Durability	M	■			■		16 GA	■			■	
Restrooms	Durability + Sanitation	M	■					16 GA		■	■	■	
Sanctuary	Durability + Aesthetics	H	■			■	■	16 GA		■	■	■	■
Stairwells	Security + Fire	M		■				16 GA	■			■	
Storage Rooms	Security + Durability	L	■					18 GA	■			■	
Utility Rooms	Durability + Security	L	■					18 GA		■		■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



University of Southern California, Los Angeles, CA

Recommended Doors For: Colleges & Universities

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Colleges + Universities
- Academic Libraries
- Corporate Training Facilities
- Military Academies

Buildings in the this category include:		DOOR TYPE							MATERIAL					EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Impact Resistant	Lead Lined	Sound Control	Lab-Tek™	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
<div><div></div> Colleges + Universities</div> <div><div></div> Academic Libraries</div> <div><div></div> Corporate Training Facilities</div> <div><div></div> Military Academies</div>															
LOCATION	CONSIDERATIONS														
Classrooms	Durability + Security	H	■						16 GA	■	■				■
Entrances	Durable + Aesthetics	H	■		■		■		16 GA		■	■	■		■
Equipment	Sound + Fire	L	■	■					18 GA	■				■	
Food Service	Durable + Sanitation	H	■		■			■	16 GA	■		■			■
Gym / Locker	Security + Durability	H	■						14 GA	■	■				■
Lab Doors	Sanitation + Durable	M	■			■		■	16 GA	■	■	■		■	
Library	Sound + Durability	M	■				■		16 GA	■	■			■	
Music Rooms	Sound + Durability	M	■				■		16 GA	■	■				■
Offices	Sound + Durability	M	■				■		16 GA	■				■	
Pool Areas	Corrosion Resist.	M	■						16 GA			■			■
Restrooms	Durable + Sanitation	M	■						16 GA		■	■		■	
Stairwells	Security + Fire	M		■					16 GA	■				■	
Storage	Security + Durability	L	■						18 GA	■				■	
Utility Rooms	Durability + Security	L	■						18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Intel, Santa Clara, CA

Recommended Doors For: Commercial, Office & Retail

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Single and Multi-Story Office Buildings
- Retail Stores
- Supermarkets + Malls
- Commercial Buildings

Buildings in the this category include: ■ Single and Multi-Story Office Buildings ■ Retail Stores ■ Supermarkets + Malls ■ Commercial Buildings		DOOR TYPE					MATERIAL					EDGE		
		Usage Level	Steel Stiffened	Fire Rated	Bullet Resistant	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS													
Cash Rooms	Security + Durability	H	■		■			14 GA	■					■
Conference Rooms	Sound + Aesthetics	M	■			■		16 GA	■		■			■
Equipment Rooms	Sound + Fire	L	■			■		18 GA	■				■	
Food Service	Impact + Sanitation	H	■				■	16 GA	■		■			■
Main Entrances	Durability + Aesthetics	H	■			■	■	16 GA		■	■	■		■
Offices	Sound + Durability	M	■			■		16 GA	■				■	
Restrooms	Durability + Sanitation	M	■					16 GA		■	■		■	
Service Doors	Durability + Security	M	■				■	16 GA		■				■
Stairwells	Security + Fire	M		■				16 GA	■				■	
Storage Rooms	Security + Durability	L	■					18 GA	■				■	
Utility Rooms	Durability + Security	L	■					18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Safeco Field, Seattle, WA

Recommended Doors For: Entertainment

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Theaters + Auditoriums
- Sports / Convention Facilities
- Amusement Facilities
- Media / Production Studios

Buildings in the this category include: ■ Theaters + Auditoriums ■ Sports / Convention Facilities ■ Amusement Facilities ■ Media / Production Studios		DOOR TYPE						MATERIAL					EDGE		
		Usage Level	Steel Stiffened	Fire Rated	Bullet Resistant	Sound Control	Impact Resistant	Mega Oversized	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS														
Banquet	Sound + Aesthetics	M	■			■			16 GA	■		■			■
Cash Rooms	Security + Durable	H	■		■				14 GA	■					■
Equipment	Sound + Fire	L	■			■		■	18 GA	■				■	
Food Service	Sanitary + Durable	H	■				■		16 GA			■			■
Main Entrances	Durable + Aesthetic	H	■			■	■		16 GA		■	■	■		■
Offices	Sound + Durability	M	■			■			16 GA	■				■	
Pools / Spas	Corrosion Resist.	H	■						16 GA			■			■
Press Boxes	Sound + Durability	M	■			■			16 GA	■	■				■
Restrooms	Durable + Sanitary	M	■						16 GA		■	■		■	
Sound Studios	Sound + Durability	M				■			14 GA	■		■		■	
Stage Doors	Sound + Durability	H	■			■		■	14 GA	■				■	■
Stairwells	Security + Fire	M		■					16 GA	■				■	
Theater Doors	Sound + Durability	H	■			■			16 GA	■				■	
Utility	Durable + Security	L	■					■	18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Food Processing, San Joaquin Valley, CA

Recommended Doors For: Food Processing

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Packing Plants + Canneries
- Dairies + Wineries
- Food Testing Labs
- Processing + Storage Facilities

Buildings in the this category include: ■ Packing Plants + Canneries ■ Dairies + Wineries ■ Food Testing Labs ■ Processing + Storage Facilities		DOOR TYPE							MATERIAL				EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Sound Control	Impact Resistant	Lab-Tek™	Mega Oversized	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS													
Climate Cont. Rooms	Sanitation + Durability	M	■				■		16 GA			■		■
Creamery	Sanitation + Durability	M	■				■		14 GA			■		■
Equipment Rooms	Sound + Fire	L	■		■			■	18 GA	■			■	
Main Entrances	Durability + Aesthetics	H	■		■	■			16 GA		■	■		■
Offices	Sound + Durability	M	■		■				16 GA	■			■	
Plant Doors	Durability + Security	M	■					■	16 GA		■			■
Processing Plant	Sanitation + Durability	M	■			■			16 GA			■		■
Restrooms	Durability + Sanitation	M	■						16 GA		■	■	■	
Stairwells	Security + Fire	M		■					16 GA	■			■	
Storage Rooms	Security + Durability	L	■						18 GA	■			■	
Testing Lab	Sanitation + Durability	M	■				■		16 GA			■		■
Utility Rooms	Durability + Security	L	■						18 GA		■		■	
Vermin Proof Rooms	Sanitation + Security	M					■	■	16 GA			■		■

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Boeing Aircraft Corporation, Everett, WA

Recommended Doors For: GSA / DOD / Military

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Military Bases / Aerospace
- Communications
- HAZMAT / NBC
- Weapons Research + Storage
- Border Patrol Stations

Buildings in the this category include:		DOOR TYPE							MATERIAL					EDGE	
		Usage Level	Steel Stiffened	Fire rated	Bullet Resistant	Lead Lined	Sound Control	Impact Resistant	Mega Oversized	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless
<div><div></div><div>Military Bases / Aerospace</div><div></div><div>Communications</div><div></div><div>HAZMAT / NBC</div><div></div><div>Weapons Research + Storage</div><div></div><div>Border Patrol Stations</div></div>															
LOCATION	CONSIDERATIONS														
Briefing Rooms	Sound + Durability	M								16 GA					
Comm Facilities	Security + Sound	M								16 GA					
Equipment Rm.	Sound + Fire	L								18 GA					
Food Service	Impact + Sanitation	H								16 GA					
HAZMAT / NBC	Fire + Security	H								14 GA					
Main Entrances	Durable + Aesthetic	H								16 GA					
Offices	Sound + Durability	M								16 GA					
Plant Offices	Durability + Security	H								16 GA					
Restrooms	Durable + Sanitation	M								16 GA					
Service Doors	Durability + Security	M								16 GA					
Stairwells	Security + Fire	M								16 GA					
Utility Rooms	Durability + Security	L								18 GA					
Weapons Storage	Fire + Security	H								14 GA					

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



USAF Medical Center, Travis AFB, CA

Recommended Doors For: Health Care

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Hospitals + Medical Centers
- Clinics + Research Centers
- Convalescent Facilities
- Rehabilitation Facilities

Buildings in the this category include:		DOOR TYPE							MATERIAL					EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Lab-Tek™	Lead Lined	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS														
Conference Rms.	Sound + Aesthetics	M	■				■		16 GA	■		■		■	
Coroner / Morgue	Sanitation + Durability	M	■					■	16 GA	■		■			
Equipment Rms.	Sound + Fire	L	■						18 GA	■				■	
Exam Rooms	Sanitation + Sound	H	■				■		16 GA	■		■		■	
Food Service	Durability + Sanitation	H	■						16 GA	■		■			■
Main Entrances	Durability + Aesthetics	H	■				■	■	16 GA		■	■	■		■
Offices	Sound + Durability	M	■				■		16 GA	■				■	
Operating Rooms	Sanitation + Impact Res.	H	■					■	16 GA	■		■			■
Patient Rooms	Sanitation + Impact Res.	H	■				■	■	16 GA	■					■
Pharmacy / Lab	Sanitation + Durability	M	■		■				14 GA	■		■			■
Restrooms	Durability + Sanitation	M	■						16 GA		■	■		■	
Stairwells	Security + Fire	M		■					16 GA	■				■	
Utility / Storage	Durability + Security	L	■						18 GA		■			■	
X-Ray Rooms	Shielding + Durability	M	■			■			16 GA	■				■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Monterey Plaza Hotel, Monterey, CA

Recommended Doors For: Hotels

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Hotels
- Motels
- Casinos
- Cruise Ships

Buildings in the this category include: ■ Hotels ■ Motels ■ Casinos ■ Cruise Ships		DOOR TYPE						MATERIAL					EDGE		
		Usage Level	Steel Stiffened	Fire Rated	6-Panel	Bullet Resistant	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS														
Banquet Rooms	Sound + Aesthetics	M	■				■		16 GA	■		■	■		■
Cash Rooms	Security + Durability	H	■			■		■	14 GA	■					■
Equipment Rms.	Sound + Fire	L	■	■					18 GA	■				■	
Food Service	Sanitation + Impact Res.	H	■					■	16 GA			■			■
Hotel Rooms	Sound + Durability	H	■		■		■	■	16 GA	■		■		■	
Main Entrances	Durability + Aesthetics	H	■				■	■	16 GA		■	■	■		■
Offices	Sound + Durability	M	■				■		16 GA	■				■	
Pools / Spas	Corrosion Resistance	H	■						16 GA			■			■
Restrooms	Durability + Sanitation	M	■						16 GA		■	■		■	
Stairwells	Security + Fire	M		■					16 GA	■				■	
Storage Rooms	Security + Durability	L	■						18 GA	■				■	
Utility Rooms	Durability + Security	L	■						18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



NASA / Ames Research Center, Moffett Field, CA

Recommended Doors For: Industrial

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Factories
- Warehouses
- Chemical Plants & Refineries
- Wastewater Treatment Buildings

Buildings in the this category include: <div><div><div></div><div></div><div></div><div></div></div><div>Factories</div><div>Warehouses</div><div>Chemical Plants & Refineries</div><div>Wastewater Treatment Buildings</div></div>		DOOR TYPE						MATERIAL				EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Mega Oversized	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS	H	■			■		16 GA	■		■	■	
Conference Rooms	Sound + Durability	L	■	■				18 GA	■			■	
Equipment Rms.	Sound + Fire	H	■					14 GA	■				■
HAZMAT Storage	Security + Durability	H	■					16 GA		■	■		■
Main Entrances	Durability + Aesthetics	H	■			■	■	16 GA		■	■		■
Monorail Doors	Security + Durability	H			■			16 GA	■	■	■		
Offices	Sound + Durability	M	■			■		16 GA	■			■	
Plant Offices	Sound + Aesthetics	M	■			■		16 GA	■		■		■
Restrooms	Durability + Sanitation	M	■					16 GA		■	■	■	
Service Doors	Security + Durability	H	■				■	16 GA			■		■
Stairwells	Security + Fire	M		■				16 GA	■			■	
Storage Rooms	Security + Durability	L	■					18 GA	■			■	
Utility Rooms	Durability + Security	L	■					18 GA		■		■	
Water Treatment	Corrosion Resistance	H	■					16 GA			■		■

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Park Place Condominiums, Portland, OR

Recommended Doors For: Multi-Unit Housing

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Apartments
- Condominiums
- Dormitories & Military Barracks
- Remote Camps

Buildings in the this category include: ■ Apartments ■ Condominiums ■ Dormitories & Military Barracks ■ Remote Camps		DOOR TYPE						MATERIAL					EDGE		
		Usage Level	Steel Stiffened	Honeycomb	FireRated	6-Panel	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS														
Equipment Rms.	Sound + Fire	L	■		■				18 GA	■				■	
Main Entrances	Durability + Aesthetics	H	■			■	■	■	16 GA		■	■	■		■
Restrooms	Durability + Sanitation	M	■						16 GA		■	■		■	
Room Doors	Durability + Sound	H	■	■			■		16 GA	■	■				■
Stairwells	Security + Fire	M			■				16 GA	■				■	
Storage Rooms	Security + Durability	L	■						18 GA	■				■	
Unit Entrances	Sound + Security	M	■			■	■	■	16 GA	■				■	
Utility Rooms	Durability + Security	L	■						18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Genentech, S. San Francisco, CA

Recommended Doors For: Pharmaceutical & Hi-Tech Labs

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Pharmaceutical and Bio Labs
- Semiconductor Labs
- Weapons & NBC Research Labs
- Nuclear Plants

Buildings in the this category include:		DOOR TYPE							MATERIAL				EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Lead Lined	Sound Control	Lab-Tek™	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Welded Seamless	Continuous Weld
<div><div></div><div>Pharmaceutical and Bio Labs</div><div></div><div>Semiconductor Labs</div><div></div><div>Weapons & NBC Research Labs</div><div></div><div>Nuclear Plants</div></div>														
LOCATION	CONSIDERATIONS	M	■				■		16 GA		■	■		■
Clean Rooms	Sanitation + Durability	L	■	■					18 GA	■			■	
Equipment Rms.	Sound + Fire	M	■				■		16 GA			■		■
Laboratory Doors	Sanitation + Durability	H	■			■		■	16 GA		■	■		■
Main Entrances	Durability + Aesthetics	M	■			■			16 GA	■			■	
Offices	Sound + Durability	M	■						16 GA		■			■
Plant Doors	Durability + Security	M	■						16 GA		■			■
Radiation Shield	Shielding + Security	M	■		■				16 GA	■			■	
Radio Wave Shield	Shielding + Security	M	■		■				16 GA	■			■	
Restrooms	Durability + Sanitation	M	■						16 GA		■	■	■	
Stairwells	Security + Fire	M		■					16 GA	■			■	
Storage Rooms	Security + Durability	L	■						18 GA	■			■	
Utility Rooms	Durability + Security	L	■						18 GA		■		■	
Vermin Proof	Sanitation + Security	M					■		16 GA			■		■
Weapons Research	Security + Fire	H	■					■	14 GA	■	■			■

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Ronald Reagan Federal Building, Santa Ana, CA

Recommended Doors For: Public & Municipal Buildings

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Court Houses
- Government Buildings
- Museums and Libraries
- Zoos and Aquariums

LOCATION	CONSIDERATIONS	DOOR MODEL					MATERIAL					EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
Artifact Storage	Fire + Security	M	■	■		■	16 GA	■				■	
Conference Rooms	Sound + Aesthetics	M			■		16 GA	■		■			■
Document Storage	Fire + Security	L	■	■		■	16 GA	■				■	
Equipment Rms.	Sound + Fire	L	■	■			18 GA	■				■	
Food Service	Impact + Sanitation	H	■			■	16 GA	■		■			■
Main Entrances	Durability + Aesthetics	H	■		■	■	16 GA		■	■	■		■
Offices	Sound + Durability	M	■		■		16 GA	■				■	
Restrooms	Durability + Sanitation	M	■				16 GA		■	■		■	
Stairwells	Security + Fire	M		■			16 GA	■				■	
Storage Rooms	Security + Durability	L	■				18 GA	■				■	
Utility Rooms	Durability + Security	L	■				18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Cerritos Elementary School, Cerritos, CA

Recommended Doors For: Schools K-12

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Preschools + Elementary Schools
- Junior High & High Schools
- Military Prep Schools & Academies
- Corporate Training Schools

Buildings in the this category include: ■ Preschools + Elementary Schools ■ Junior High & High Schools ■ Military Prep Schools & Academies ■ Corporate Training Schools		DOOR TYPE						MATERIAL					EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Impact Resistant	Sound Control	Bullet Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
LOCATION	CONSIDERATIONS	H	■					16 GA	■	■				■
Classrooms	Durability + Security	H	■		■	■		16 GA		■	■	■		■
Entrances	Durable + Aesthetics	L	■	■				18 GA	■				■	
Equipment	Sound + Fire	H	■		■			16 GA	■		■			■
Food Service	Durable + Sanitation	H	■					14 GA	■	■				■
Gym / Locker	Security + Durability	M	■			■		16 GA	■	■			■	
Library	Sound + Durability	M	■			■		16 GA	■	■				■
Music Rooms	Sound + Durability	M	■			■		16 GA	■				■	
Offices	Sound + Durability	M	■					16 GA					■	
Pool Areas	Corrosion Resist.	M	■					16 GA			■			■
Restrooms	Durable + Sanitation	M		■				16 GA	■				■	
Stairwells	Security + Fire	L	■					18 GA	■				■	
Storage	Security + Durability	L	■					18 GA		■			■	
Utility Rooms	Durability + Security	L	■					18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above



Seattle Public Transit, Seattle, WA

Recommended Doors For: Transportation

NOTE: The following is broad-spectrum data.
Please contact us for specific project recommendations.

Buildings in the this category include:

- Airports
- Subway, Bus, & Train Stations
- Marine Terminals
- Freight / Cargo Terminals

Buildings in the this category include:		DOOR TYPE						MATERIAL					EDGE	
		Usage Level	Steel Stiffened	Fire Rated	Bullet Resistant	Sound Control	Impact Resistant	Face Sheet Gauge	Cold Rolled Steel	Galvanized Steel	Stainless Steel	Bronze	Welded Seamless	Continuous Weld
<div><div></div>Airports</div> <div><div></div>Subway, Bus, & Train Stations</div> <div><div></div>Marine Terminals</div> <div><div></div>Freight / Cargo Terminals</div>														
LOCATION	CONSIDERATIONS	H	■		■		■	16 GA	■	■				■
Cash Rooms	Security + Durability	M	■		■			14 GA	■	■				■
Communications	Security + Durability	H	■			■		16 GA	■		■		■	
Conference Rooms	Sound + Durability	L	■	■				18 GA	■				■	
Equipment Rms.	Sound + Fire	H	■					16 GA	■		■			■
Food Service	Durability + Sanitation	H	■			■		16 GA	■	■				■
Holding Cells	Security + Durability	H	■			■		16 GA	■	■				■
Main Entrances	Durability + Aesthetics	H	■			■	■	16 GA		■	■	■		■
Offices	Sound + Durability	M	■			■		16 GA	■				■	
Restrooms	Durability + Sanitation	M	■					16 GA		■	■		■	
Stairwells	Security + Fire	M		■				16 GA	■				■	
Storage Rooms	Security + Durability	L	■					18 GA	■				■	
Utility Rooms	Durability + Security	L	■					18 GA		■			■	

See [Door Section](#) for information on Door Models and Vertical Door Edge Options listed above

Factory Assembly & Installation

Stiles offers the option of having your hardware and glass factory-installed on most door orders. With 30 years experience in hardware preparation and installation, we will install customer-supplied hardware in accordance with your templates and dimensions. We also provide numerous glass and glazing options to meet your specific requirements.

Section Contents

Hardware Installation	FA-1.0
Glass & Glazing	FA-2.0
Packaging & Shipping	FA-3.0

Hardware Installation

- Locks & Deadbolts
- Push / Pull Hardware
- Exit Devices
- Door Closers
- Flush Bolts
- Hinges
- Automatic Door Bottoms
- Electronic Hardware
- Automatic Door Bottoms
- Viewers
- Kickplates

Glass & Glazing

- Supply and Installation
- Glass can be shipped "loose lite"
- All types of glass

Packaging & Shipping

- Custom Crating
- Domestic and International
- Custom Palettes

Built to Order.TM



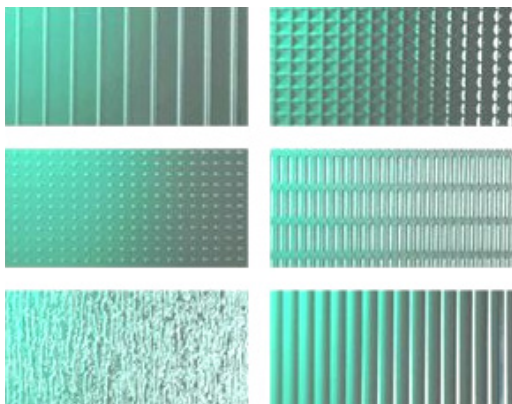
Reduce Jobsite Labor and Improve Profits with
Factory Installed Hardware by Stiles.

Stiles offers the option of having your hardware factory-installed on most door orders. With 30 years experience in hardware preparation and installation, we will install customer-supplied hardware in accordance with your templates and dimensions including:

- Locks and Deadbolts
- Push / Pull Hardware
- Exit Devices
(Concealed, Rim, Flush, or Surface-Mounted)
- Kickplates
- Door Closers
(Surface-Mounted or Concealed)
- Flush Bolts
- Hinges
(Butt or Continuous Geared)
- Automatic Door Bottoms



Simply specify
"Factory Hardware Installation"
on your next order...



Our factory glazing is performed with the same care and exceptional craftsmanship that we commit to every door that we build. By choosing factory installed glass by Stiles, your benefits will include:

- Reduction in on-site glazing time
- Reduced coordination with glazing trades
- No risk of improper installation materials or methods
- No risk of glass loss during staging, storage, or installation
- Improved Profits and Maintained Schedules

Reduce Jobsite Labor and Improve Profits
with Factory Installed Glass by Stiles.

Sampling of Glass Options

Description	Thickness Range		Tempered	Fire Rated	Sound Control	Bullet Resistant	Notes
	From	To					
Single-Glazed Architectural Glass	3/16"	3/8"	Yes	No	No	No	Various colors
Insulated Glass Units (Various Air Space Widths)	1/2"	1"	Yes	No	Yes [1]	No	Numerous glass options
Architectural Laminated Glass (Various Laminate Combinations)	7/32"	9/16"	No	No	Yes [2]	No	Numerous glass options
Wire Glass (Square or Diamond Mesh)	1/4"	1/4"	No	Yes	No	No	Clear or Obscure
Architectural Textured Glass	3/16"	3/8"	Yes	No	No	No	Numerous texture options
Fire Rated Glass (Offered Single and Dual-Glazed)	3/16"	1-9/16"	Yes [4]	Yes	No	Yes [5]	20-minute to 3-hour Rated
Bullet Resistant Glass	13/16"	1-1/4"	No	No	No	Yes [3]	UL Levels 1-8

[1] As part of a specific laminated glass assembly

[2] PVB interlayer and various glass thicknesses produce a wide range of STC levels

[3] Various laminating options including glass clad polycarbonate

[4] Impact Resistant / Meets 16CFR1201

[5] Specific glass types offer bullet resistant rating

Simply specify
"Factory Glass Installation"
on your next order...

Stiles offers specialized all-inclusive packaging and shipping designed to meet the specific requirements of each project.

All boxes, skids, crates, and pallets are individually designed and constructed for specific products. Loose-lite glass and hardware components are individually packaged and can be integrated into large palletized door crates in order to eliminate loss or separation of materials.

The last phase of our rigid quality control program occurs during packaging to guard against defects or shortages. All materials are labeled for easy identification during unpacking, on-site staging, and installation.

Our personnel have extensive experience packing and protecting doors and frames for shipment to both domestic and foreign destinations. Our large, well-equipped dock facility makes provision for van as well as container loading.

We carefully monitor all shipments to insure your delivery is on time and delivered free of defects or shortages.



The last phase of our rigid quality control program occurs during packaging to guard against defects or shortages.

*Need doors and frames fast?
Count on Stiles to deliver.*

See [Quick Ship Section](#)



All boxes, skids, crates, and pallets are individually designed and constructed for specific products



1, 3, 5, or 10-Day Shipments!

- Highest Quality Steel Doors + Frames
- Buy Manufacturer Direct
- Easy Ordering - online, FAX, or by phone
- Match any hardware location

Doors

- 39 Different Door Elevations
- 7 Different Core Options
- Cold Rolled Steel
- A60 Galvanized Steel
- Stainless Steel
- Sound Control
- Fire Rated
- Bullet Resistant

Frames

- 22 Different Frame Elevations
- 14 Different Frame Profiles
- Sound Control
- Fire Rated
- Bullet Resistant

QUICK SHIP HOTLINE:

T 209 / 538-3667 Ext. 3180

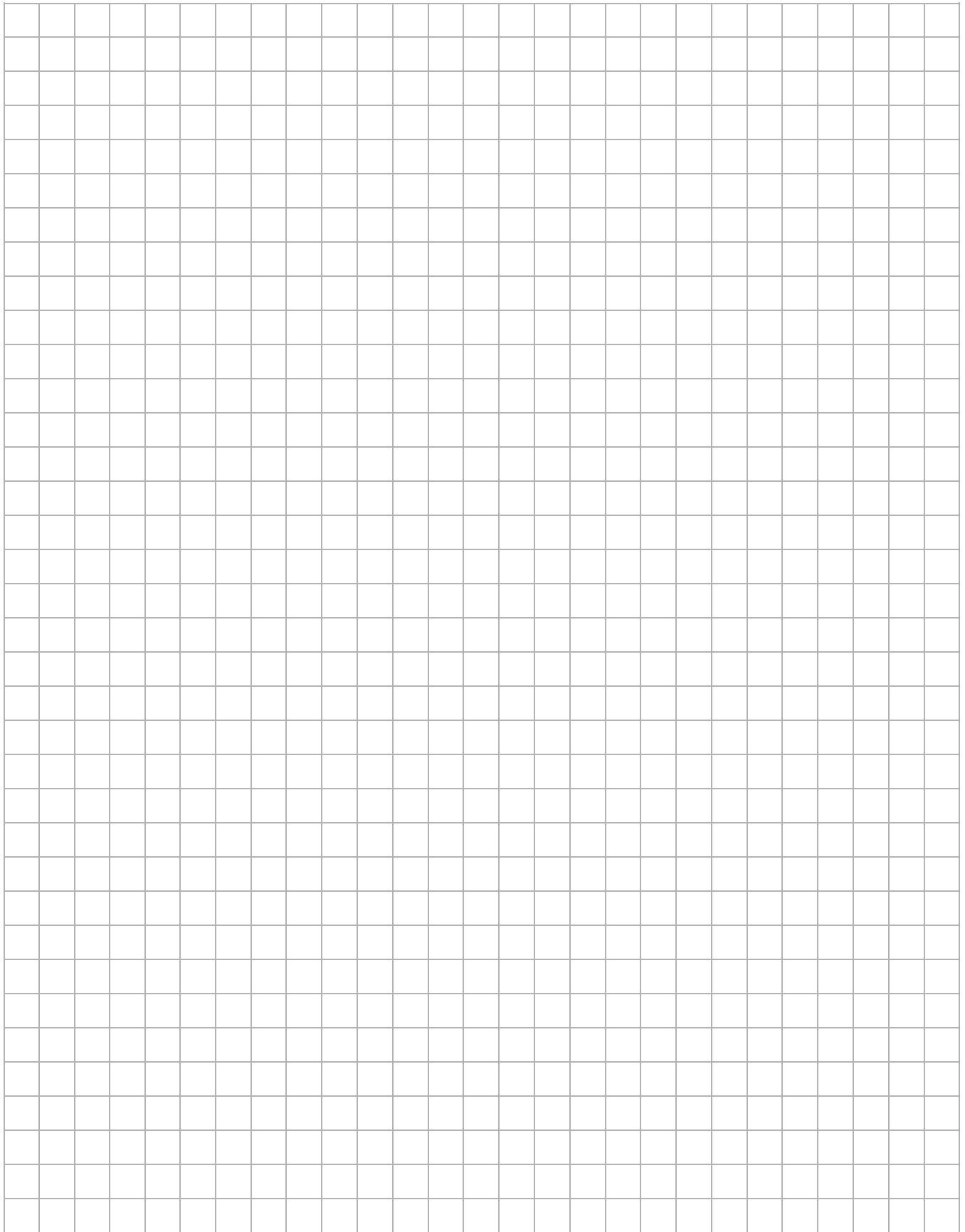
F 209 / 538-2776

Section Contents

Available Door Models	QS-1.0
Available Door Sizes & Options	QS-1.1
Available Frame Elevations & Profiles	QS-1.2
Available Frame Sizes & Options	QS-1.3

Built to Order.™

Notes





Available Door Models

(CLICK SERIES TO DOWNLOAD / PRINT ELEVATIONS)

DOOR SERIES	MODEL	SHIPMENT OPTIONS				NOTES
		1 DAY	3 DAY	5 DAY	10 DAY	
F Series	F	■	■	■	■	
Flush Doors	MRD					Contact Factory
D Series	ALL	■	■	■	■	
Flush Dutch Doors						
GL Series	ALL	■	■	■	■	
Glass Lite & Solid Panel Combinations						
Commercial Entrances	ALL			■	■	
Series 200 , 300 , 400 , 600						
SP Series	ALL			■	■	
Solid Panel with Flush or Raised Mouldings						
LV Series	ALL	■	■	■	■	Doors may be shipped "open" if louvers are not available at time of shipment.
Flush Doors with Louver Vents						
VL Series	ALL			■	■	
Doors with Vision Lite Glass Kits	CRS, STD					Contact Factory
TDL Series	ALL					Contact Factory
Glass Lite & Solid Combination Doors True Divided Lite						
AT Series	ALL					Contact Factory
Arch Top Doors with Glass Lites & Solid Panel Combinations						
RT Series	ALL					Contact Factory
Radius Top Doors with Glass Lites & Solid Panel Combinations						

NOTE: The information on this page represents general GUIDELINES. Verification of ship date will be provided after order is reviewed by factory.

Available Sizes and Options



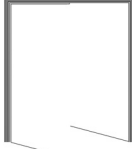



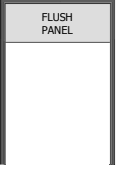



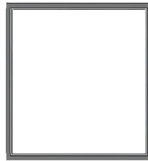
DESCRIPTION	1 DAY	3 DAY	5 DAY	10 DAY	NOTES
Cold Rolled / A-60 Galvanized Steel Doors					
Doors	■	■	■	■	18, 16, or 14 GA Cold Rolled or A60 Galvanized
Maximum Size	4-8 X 10-0	4-8 X 10-0	4-8 X 10-0	4-8 X 12-0	Standard or Tnemec Prime Paint Quantities - Consult Factory
Stainless Steel Doors					
Stainless Doors			■	■	Type 304, No. 4 Finish
Maximum Size			3-8 X 10-0	3-8 X 10-0	Quantities - Consult Factory
Audia™ Sound Control Doors					
Sound Doors up to STC 50	■	■	■	■	Cold Rolled or A60 Galvanized Steel Standard or Tnemec Prime Paint
Sound Doors up to STC 52			■	■	Stainless Steel Type 304, No. 4 Finish
Wood Sound Doors up to STC 50				■	Glass Lite Doors may be shipped "open" if glass is not available at time of shipment.
Wood Sound Doors up to STC 52				■	Wood Sound Doors: Contact factory for wood species available
Maximum Size	4-8 X 10-0	4-8 X 10-0	4-8 X 10-0	4-8 X 10-0	Quantities - Consult Factory
Ballistica™ Bullet Resistant Doors					
UL752 Levels 1, 2, 3, 6	■	■	■	■	Cold Rolled or A60 Galvanized Steel Standard or Tnemec Prime Paint
UL752 Levels 4, 5, 7, 8			■	■	Stainless Steel Type 304, No. 4 Finish
All UL 752 Shotgun Levels	■	■	■	■	Wood Bullet Resistant Doors: Contact factory for wood species available
Wood Doors, UL752 Levels 1, 2, 3, 6			■	■	Glass Lite Doors may be shipped "open" if glass is not available at time of shipment.
Wood Doors, UL752 Levels 4, 5, 7, 8				■	Quantities - Consult Factory
Wood Doors, All UL752 Shotgun Levels			■	■	
Maximum Size	4-8 X 10-0	4-8 X 10-0	4-8 X 10-0	4-8 X 12-0	

NOTE: The information on this page represents general GUIDELINES. Verification of ship date will be provided after order is reviewed by factory.









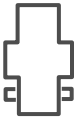




Available Frame Elevations

1, 3, 5, or 10 DAY Quick Ship

							
2	3	4	10	11	13	14	19 (4" HEAD)
			<p>Most other frames available in 10-day time frame *See FRAMES Section for additional choices</p>				
16 (4" HEAD / LEGS)	18	19					

Available Frame Profiles

						
1	2	3	4	5	6	8
				<p>Most other profiles available in 10-day time frame *See Frames Section for additional choices</p>		
12	13	14	16			

NOTE: The information on this page represents general GUIDELINES. Verification of ship date will be provided after order is reviewed by factory.

Stiles

Steel Door + Window Systems

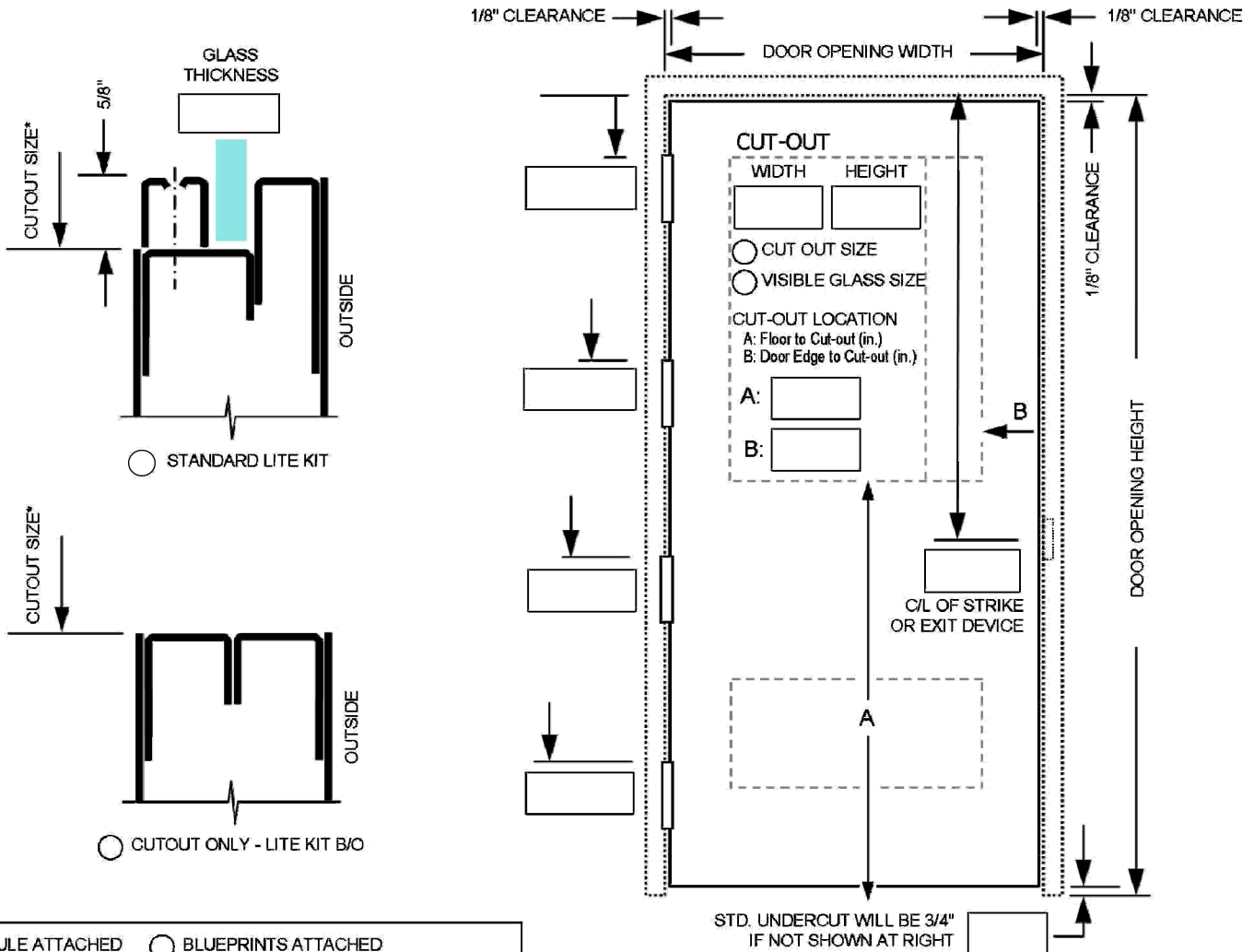
Stiles Custom Metal Inc
1885 Kinser Road
Ceres CA USA 95307

T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

SINGLE DOOR

COMPANY		CONTACT		RFQ / PO#	
TEL		FAX		JOB NAME	
SHIP ADDRESS			CITY	STATE	ZIP
LEAD TIME		<input type="radio"/> QUOTATION <input type="radio"/> ORDER		PAGE	OF



☐ SCHEDULE ATTACHED ☐ BLUEPRINTS ATTACHED

DOOR DATA:

OPENING NO.	QTY	HAND [A]	DOOR OPENING [B]		DOOR THICKNESS [C]	FIRE LABEL
			WIDTH (IN)	HEIGHT (IN)		

[A] See handing chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)
 [B] Door opening width measured from jamb rabbet to jamb rabbet
 Door opening height measured from bottom of frame to head rabbet
 [C] Standard door thickness is 1-3/4". If other, please specify
 NOTE: All doors & frames are reinforced for closers

DOORS: ELEVATION (See Catalog) <input type="text"/> CORE <input type="text"/> MATERIAL <input type="text"/> GAUGE <input type="text"/> EDGE <input type="text"/> <input type="radio"/> CLOSE TOP OF DOOR <input type="radio"/> CLOSE DOOR BOTTOM <input type="radio"/> WATERTIGHT	HARDWARE: LOCATIONS <input type="text"/> HINGE SIZE / MFG. & PART # <input type="text"/> <input type="radio"/> EXTRA HEAVY (NOTE: STD Hinge Backset on Doors = 1/4") OTHER HINGE BACKSET <input type="text"/> LOCK - EXIT DEVICE / MFG. & PART # <input type="text"/> <input type="radio"/> 2-3/4" STRIKE <input type="radio"/> 4-7/8" STRIKE
DOOR FINISH: FINISH <input type="text"/>	OTHER / INSTRUCTIONS: (Attach separate sheet if necessary)

Stiles

Steel Door + Window Systems

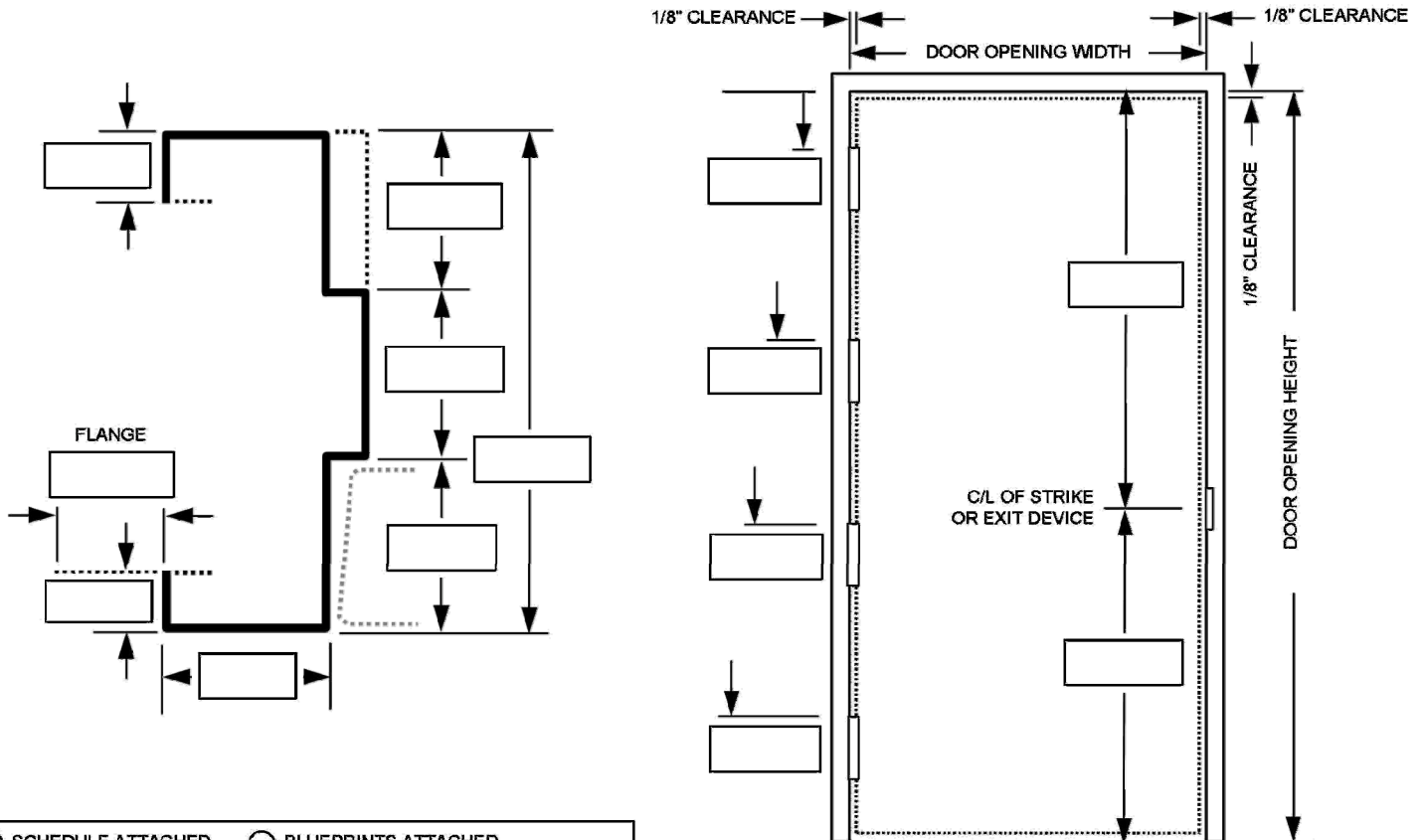
Stiles Custom Metal Inc
1885 Kinser Road
Ceres CA USA 95307

T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

SINGLE FRAME

COMPANY		CONTACT		RFQ / PO#	
TEL		FAX		JOB NAME	
SHIP ADDRESS			CITY	STATE	ZIP
LEAD TIME		<input type="radio"/> QUOTATION <input type="radio"/> ORDER		PAGE	OF



☐ SCHEDULE ATTACHED ☐ BLUEPRINTS ATTACHED

FRAME DATA:

OPENING NO.	QTY	HAND [A]	DOOR OPENING [B] WIDTH (IN)	HEIGHT (IN)	WALL ANCHOR [C]	FIRE LABEL

[A] See handing chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)
 [B] Door opening width measured from jamb rabbet to jamb rabbet.
 Door opening height measured from bottom of frame to head rabbet.
 [C] Anchors: See online catalog FRAMES section (ANCHORS), or print catalog p. F-11.0 - F-11.2
 NOTE: All frames receive T6 floor anchors except KDPL
 NOTE: All doors & frames are reinforced for closers

FRAMES:

CONSTRUCTION

MATERIAL

GAUGE ☐ NO SILENCERS

FINISHING:

FINISH

HARDWARE:

LOCATIONS

HINGE SIZE / MFGR & PART #

☐ EXTRA HEAVY

OTHER HINGE BACKSET

STD Hinge Backset on Frames = 11/32"

LOCK / EXIT DEVICE MFGR & PART #

☐ 2-3/4" STRIKE ☐ 4-7/8" STRIKE

OTHER / INSTRUCTIONS:
 (Use separate sheet if necessary)

Stiles

Steel Door + Window Systems

Stiles Custom Metal Inc

1885 Kinser Road

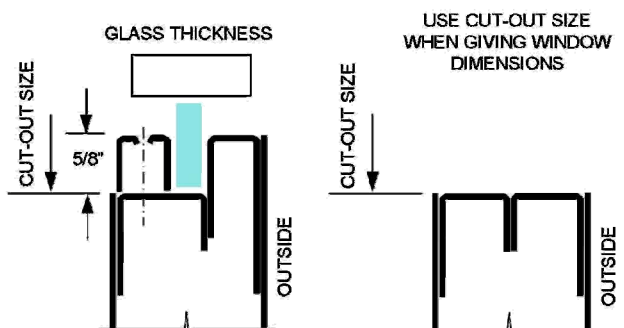
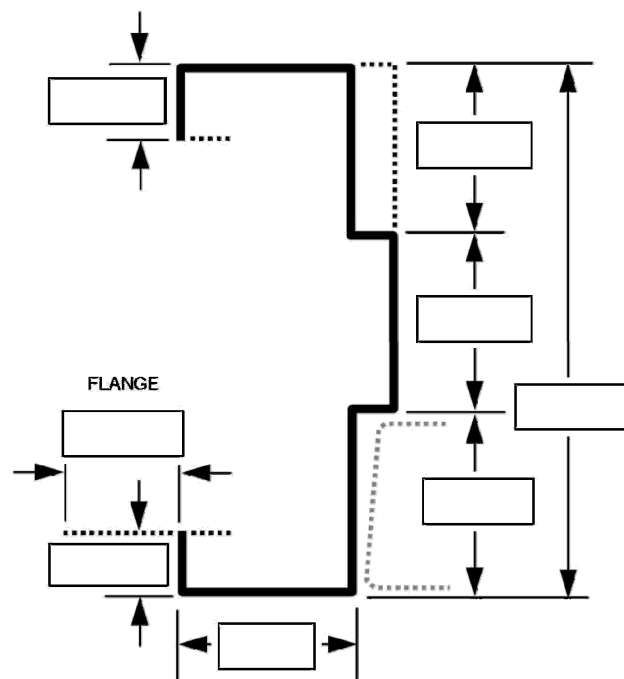
Ceres CA USA 95307

T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

SINGLE DOOR & FRAME

COMPANY			CONTACT			RFQ / PO#		
TEL			FAX			JOB NAME		
SHIP ADDRESS						CITY	STATE	ZIP
LEAD TIME						<input type="radio"/> QUOTATION <input type="radio"/> ORDER		PAGE <input type="text"/> OF <input type="text"/>



☐ STANDARD LITE KIT
 ☐ CUTOUT ONLY - LITE KIT B/O

DOOR + FRAME DATA:		DOOR OPENING [B]		WALL ANCHOR [C]		FIRE LABEL	
OPENING NO.	QTY	HAND [A]	WIDTH (IN)	HEIGHT (IN)			

[A] See hanging chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)

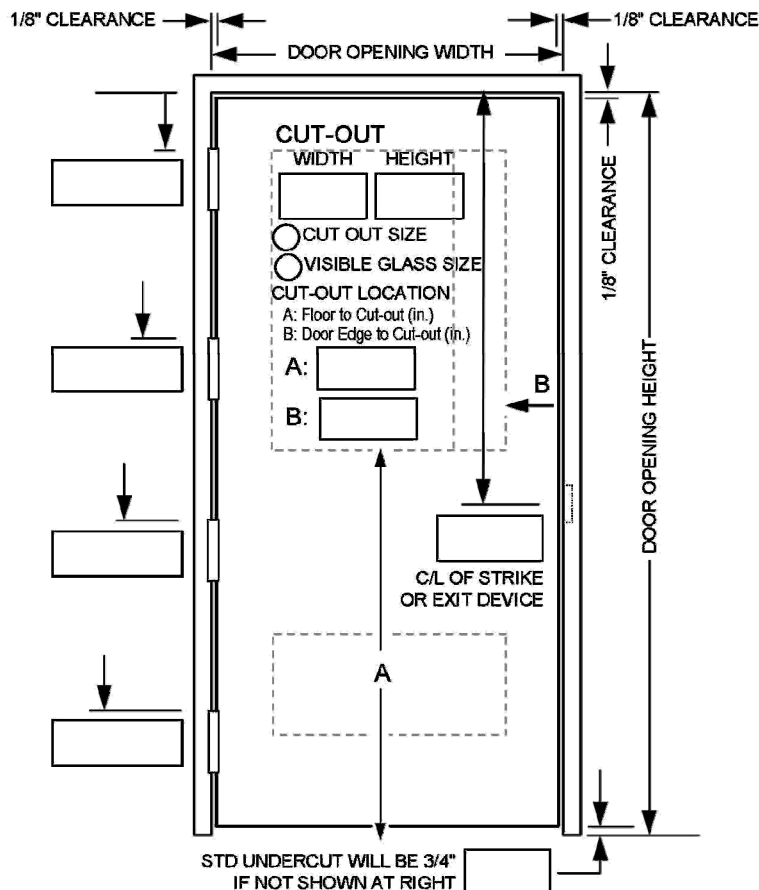
[B] Door opening width measured from jamb rabbet to jamb rabbet.

Door opening height measured from bottom of frame to head rabbet.

[C] Anchors: See online catalog FRAMES section (ANCHORS), or print catalog p. F-11.0 - F-11.2

NOTE: All frames receive T6 floor anchors except KDPL

NOTE: All doors & frames are reinforced for closers



STD UNDERCUT WILL BE 3/4" IF NOT SHOWN AT RIGHT

DOORS: ELEVATION (See Catalog) <input type="text"/> CORE <input type="text"/> MATERIAL <input type="text"/> GAUGE <input type="text"/> EDGE <input type="text"/> <input type="radio"/> CLOSE TOP OF DOOR <input type="radio"/> CLOSE DOOR BOTTOM <input type="radio"/> WATERTIGHT	HARDWARE: LOCATIONS <input type="text"/> HINGE SIZE / MFG. & PART # <input type="text"/> <input type="radio"/> EXTRA HEAVY OTHER HINGE BACKSET <input type="text"/> (NOTE: STD Hinge Backset on Frames = 11/32") LOCK - EXIT DEVICE / MFG. & PART # <input type="text"/> <input type="radio"/> 2-3/4" STRIKE <input type="radio"/> 4-7/8" STRIKE
FRAMES: CONSTRUCTION <input type="text"/> MATERIAL <input type="text"/> GAUGE <input type="text"/> <input type="radio"/> NO SILENCERS	FINISHING: FINISH <input type="text"/> OTHER / INSTRUCTIONS: (Attach separate sheet if necessary)

Stiles

Steel Door + Window Systems

Stiles Custom Metal Inc

1885 Kinser Road

Ceres CA USA 95307

T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

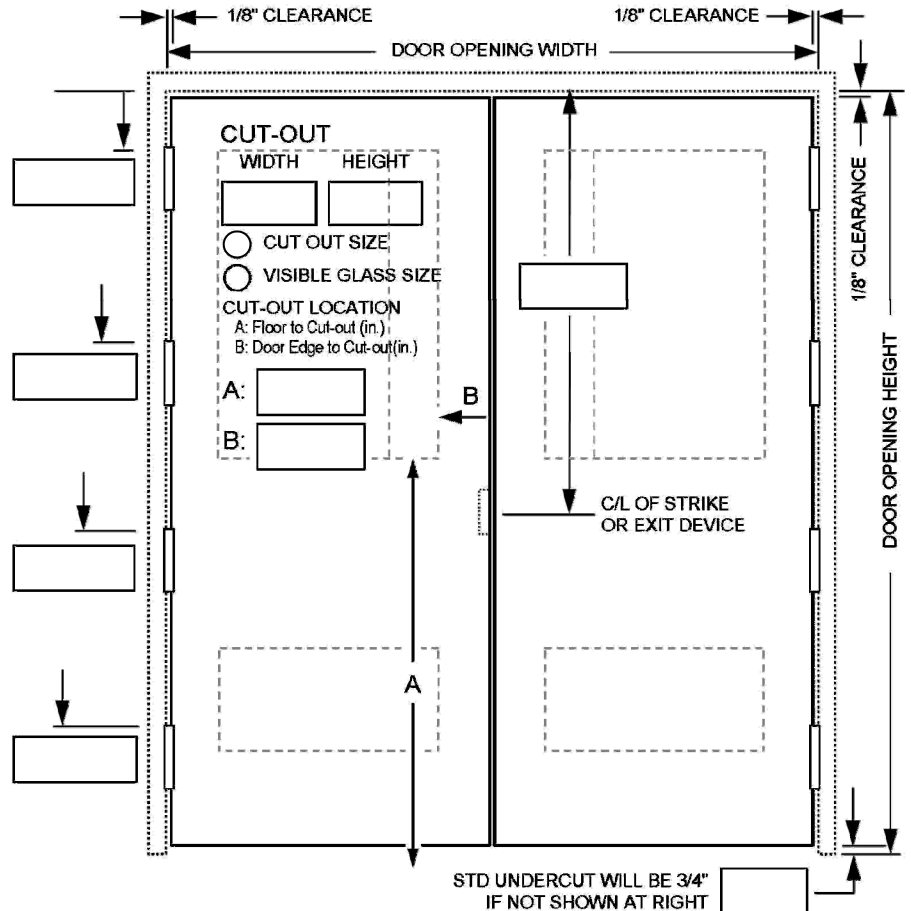
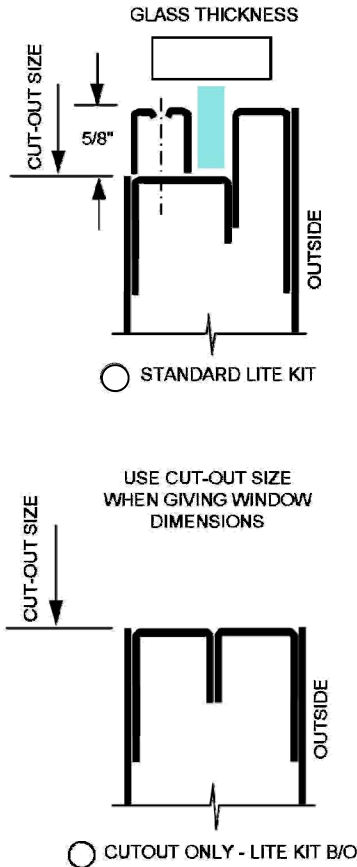
DOOR PAIR

COMPANY CONTACT RFQ / PO#

TEL FAX JOB NAME

SHIP ADDRESS CITY STATE ZIP

LEAD TIME ☐ QUOTATION ☐ ORDER PAGE OF



☐ SCHEDULE ATTACHED ☐ BLUEPRINTS ATTACHED

DOOR DATA:

OPENING NO.	QTY	HAND [A]	DOOR OPENING WIDTH (IN) [B]	DOOR OPENING HEIGHT (IN)	DOOR THICKNESS [C]	FIRE LABEL
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

DOORS:

ELEVATION (See Catalog)

CORE

MATERIAL

GAUGE

EDGE

☐ CLOSE TOP OF DOORS

☐ CLOSE DOOR BOTTOMS

☐ WATERTIGHT

FINISHING:

FINISH

HARDWARE:

LOCATIONS

HINGE SIZE / MFGR. & PART #

☐ EXTRA HEAVY

OTHER HINGE BACKSET

(NOTE: STD Hinge Backset on Doors = 1/4")

LOCK - EXIT DEVICE / MFGR. & PART #

☐ 2-3/4" STRIKE ☐ 4-7/8" STRIKE

FLUSH BOLTS / MFGR. & PART #

☐ STILES TO SUPPLY ASTRAGAL

OTHER / INSTRUCTIONS: (Attach separate sheet if necessary)

[A] See handing chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)

[B] Door opening width measured from jamb rabbet to jamb rabbet.

Door opening height measured from bottom of frame to head rabbet.

[C] Standard door thickness is 1-3/4". If other, please specify.

NOTE: All doors & frames are reinforced for closers

Stiles

Steel Door + Window Systems

Stiles Custom Metal Inc.

1895 Kinsler Road

Ceres CA USA 95307

T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

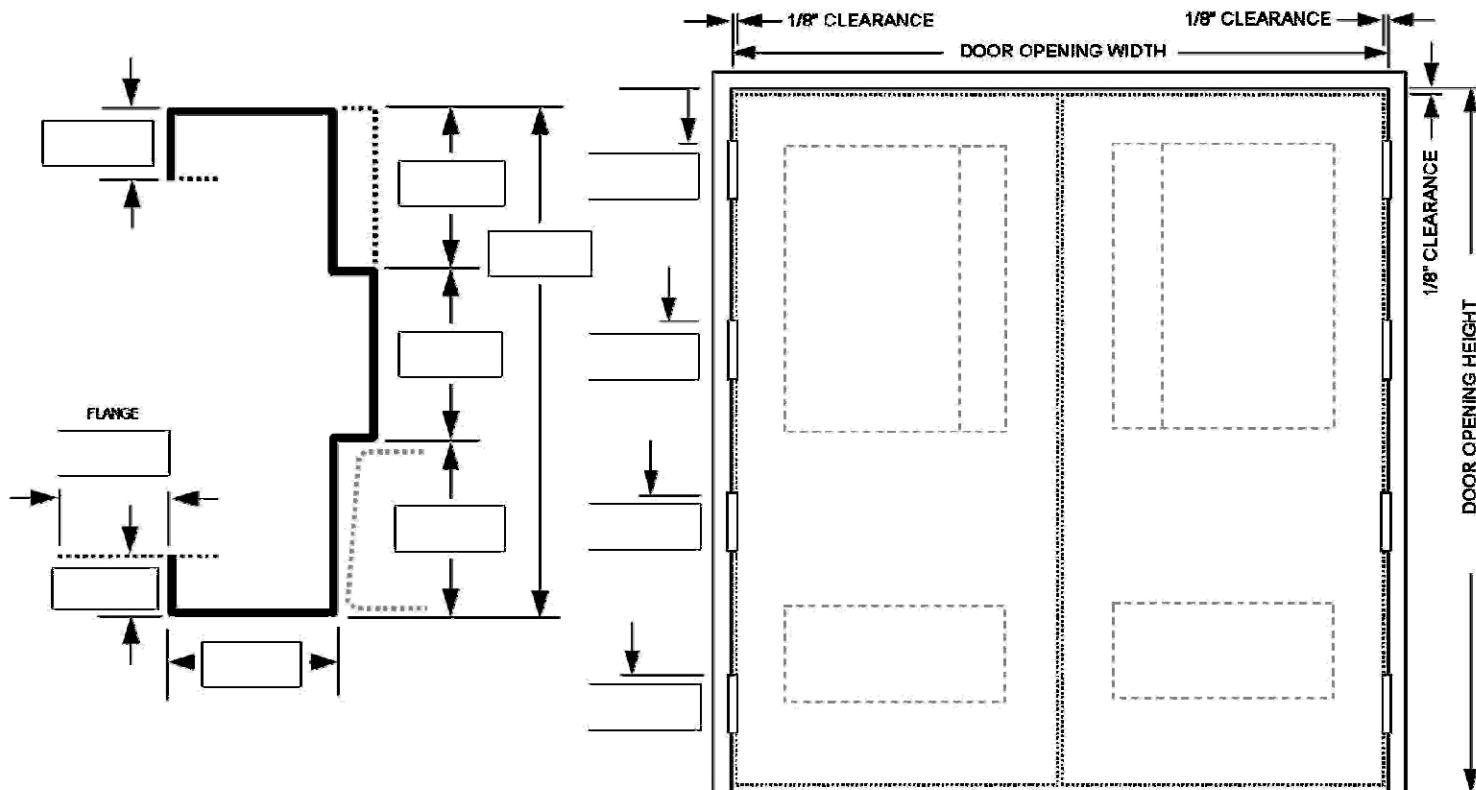
PAIR FRAME

COMPANY CONTACT RFQ / PO#

TEL FAX JOB NAME

SHIP ADDRESS CITY STATE ZIP

LEAD TIME ☐ QUOTATION ☐ ORDER PAGE OF



☐ SCHEDULE ATTACHED ☐ BLUEPRINTS ATTACHED

FRAME DATA:

OPENING NO.	QTY	HAND [A]	DOOR OPENING [B] WIDTH (IN) HEIGHT (IN)	WALL ANCHOR [C]	FIRE LABEL

[A] See handing chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)

[B] Door opening width measured from jamb rabbet to jamb rabbet.

Door opening height measured from bottom of frame to head rabbet.

[C] Anchors: See online catalog FRAMES section (ANCHORS), or print catalog p. F-11.0 - F-11.2

NOTE: All frames receive 16 floor anchors except KDPL.

NOTE: All doors & frames are reinforced for closers.

FRAMES:

CONSTRUCTION

MATERIAL

GUAGE ☐ NO SILENCERS

FINISHING:

FINISH

OTHER / INSTRUCTIONS:

(Attach separate sheet if necessary)

HARDWARE:

LOCATIONS

HINGE SIZE / MFGR. & PART #

☐ EXTRA HEAVY

OTHER HINGE BACKSET

(NOTE: STD Hinge Backset on Frames = 11/32")

LOCK - EXIT DEVICE / MFGR. & PART #

☐ 2-3/4" STRIKE ☐ 4-7/8" STRIKE

FLUSH BOLTS / MFGR. & PART #

Stiles

Steel Door + Window Systems

Stiles Custom Metal Inc.

1885 Kinser Road

Ceres CA USA 95307

T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

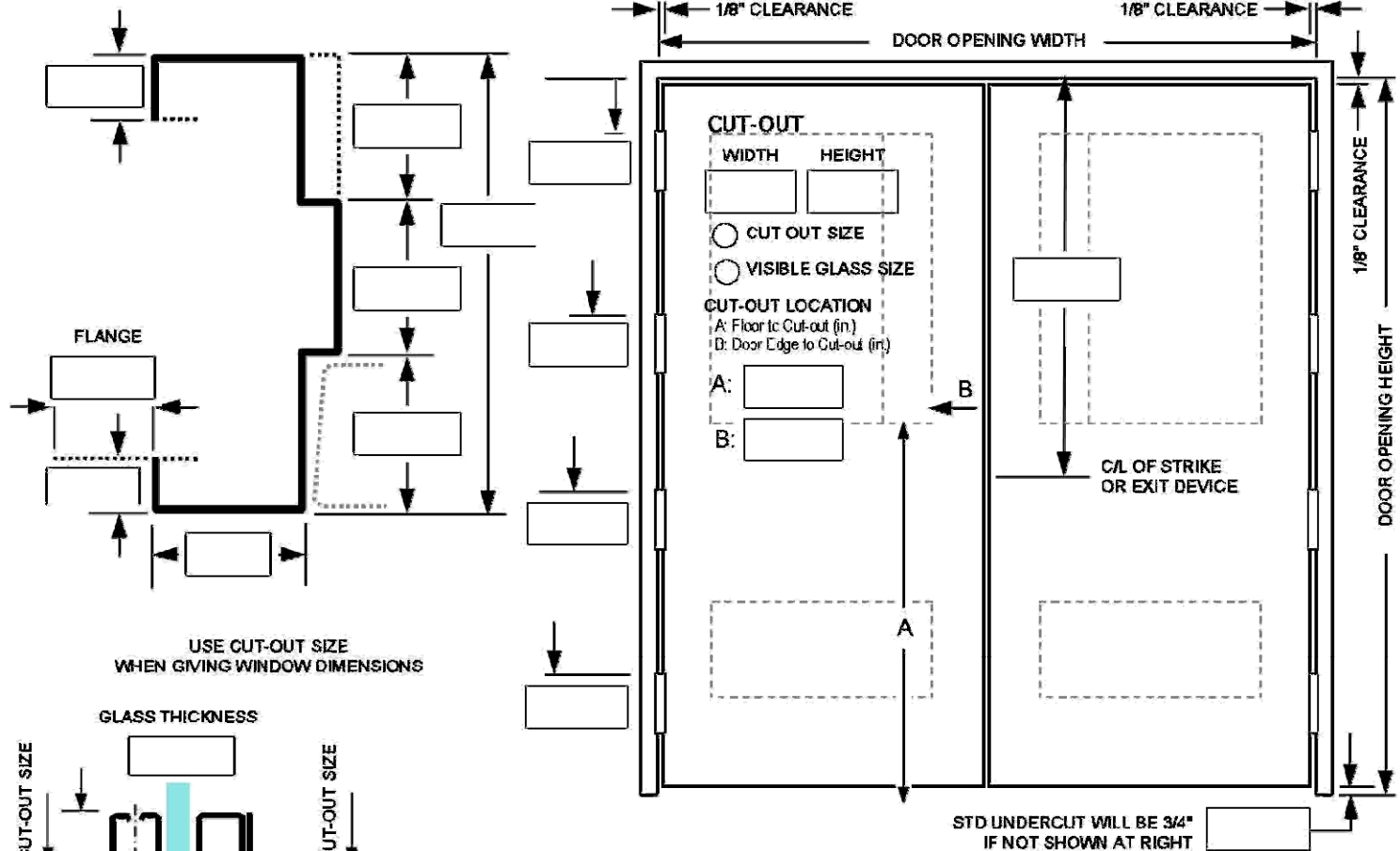
DOOR PAIR & FRAME

COMPANY CONTACT RFQ / PO#

TEL FAX JOB NAME

SHIP ADDRESS CITY STATE ZIP

LEAD TIME ☐ QUOTATION ☐ ORDER PAGE OF



☐ SCHEDULE ATTACHED ☐ BLUEPRINTS ATTACHED

DOOR + FRAME DATA:

OPENING NO.	QTY	HAND [A]	DOOR OPENING [B]		WALL ANCHOR [C]	FIRE LABEL
			WIDTH (IN)	HEIGHT (IN)		
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

[A] See hanging chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)

[B] Door opening width measured from jamb rabbet to jamb rabbet.

Door opening height measured from bottom of frame to head rabbet.

[C] Anchor: See online catalog "FRAMES" section (ANCHORS), or print catalog p. F-11.0 - F-11.2

NOTE: All frames receive TG floor anchors except KDPL

NOTE: All doors & frames are reinforced for closes

DOORS:

ELEVATION (See Catalog)

CORE

MATERIAL

GAUGE

EDGE

☐ CLOSE TOP OF DOORS

☐ CLOSE DOOR BOTTOMS

☐ WATERTIGHT

FRAMES:

CONSTRUCTION

GAUGE ☐ NO SILENCERS

MATERIAL

OTHER / INSTRUCTIONS:

(Attach separate sheet if necessary)

HARDWARE:

LOCATIONS

HINGE SIZE / MFG. & PART #

☐ EXTRA HEAVY

OTHER HINGE BACKSET

(NOTE: STD Hinge Backset on Frames = 11/32")

LOCK / EXIT DEVICE / MFG. & PART #

☐ 2-3/4" STRIKE ☐ 4-7/8" STRIKE

FLUSH BOLTS / MFG. & PART #

☐ STILES TO SUPPLY ASTRAGAL

FINISHING:

FINISH

Stiles

Steel Door + Window Systems

Stiles Custom Metal Inc
1885 Kinser Road
Ceres CA USA 95307

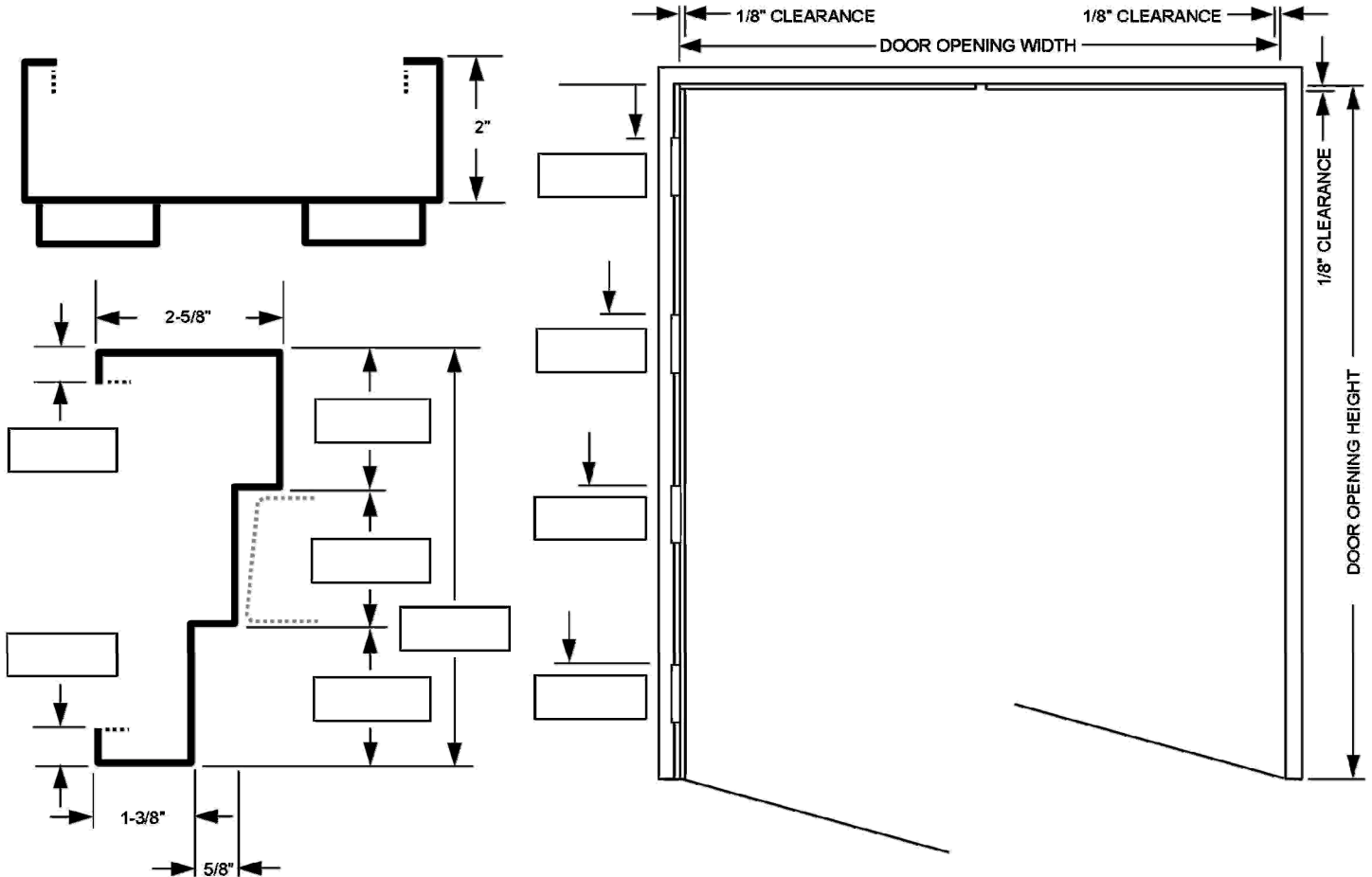
T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

LHR DOUBLE EGRESS FRAME

COMPANY		CONTACT		RFQ / PO#	
TEL		FAX		JOB NAME	
SHIP ADDRESS		CITY		STATE	
LEAD TIME				ZIP	

☐ QUOTATION
 ☐ ORDER
 PAGE OF



☐ SCHEDULE ATTACHED
 ☐ BLUEPRINTS ATTACHED

FRAME DATA:

OPENING NO.	QTY	HAND [A]	DOOR OPENING [B]		WALL ANCHOR [C]	FIRE LABEL
			WIDTH (IN)	HEIGHT (IN)		
		LHRA				
		LHRA				
		LHRA				
		LHRA				
		LHRA				
		LHRA				
		LHRA				
		LHRA				

[A] See handing chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)
 [B] Door opening width measured from jamb rabbet to jamb rabbet.
 Door opening height measured from bottom of frame to head rabbet.
 [C] Anchors: See online catalog FRAMES section (ANCHORS), or print catalog p. F-11.0 - F-11.2
 NOTE: All doors & frames are reinforced for closers
 NOTE: All frames receive T8 floor anchors except KDPL

FRAMES: CONSTRUCTION <input type="text"/> MATERIAL <input type="text"/> GAUGE <input type="text"/> <input type="radio"/> NO SILENCERS	HARDWARE: LOCATIONS <input type="text"/> HINGE SIZE / MFGR. & PART # <input type="text"/> <input type="radio"/> EXTRA HEAVY OTHER HINGE BACKSET <input type="text"/> (NOTE: STD Hinge Backset on Frames = 11/32") LOCK - EXIT DEVICE / MFGR. & PART # <input type="text"/> <input type="radio"/> 2-3/4" STRIKE <input type="radio"/> 4-7/8" STRIKE FLUSH BOLTS / MFGR. & PART # <input type="text"/>
FINISHING: FINISH <input type="text"/>	
OTHER / INSTRUCTIONS: (Attach separate sheet if necessary)	

Stiles

Steel Door + Window Systems

Stiles Custom Metal Inc
1885 Kinser Road
Ceres CA USA 95307

T 209 / 538-3667 F 209 / 538-2776

www.stilesdoor.com

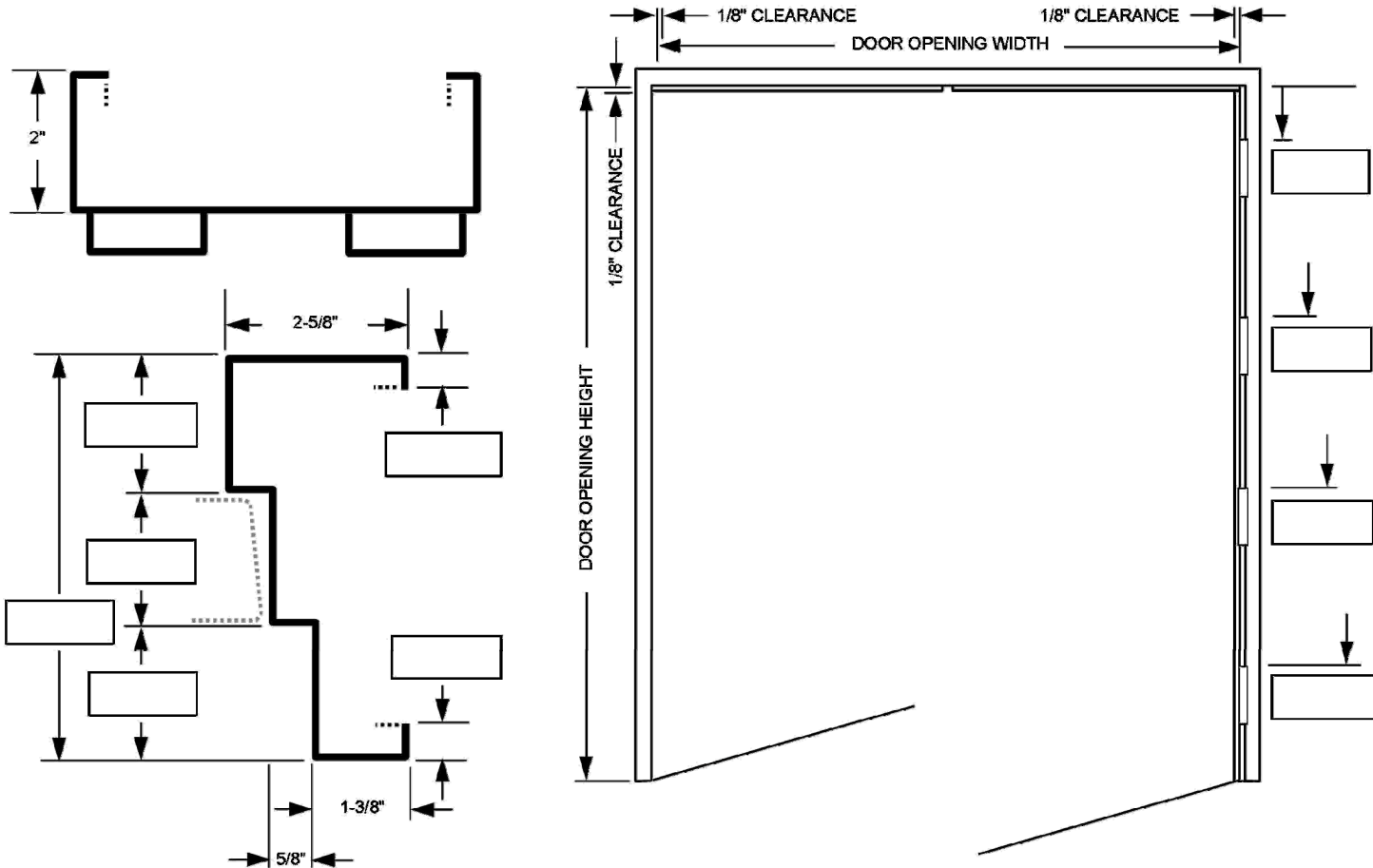
RHR DOUBLE EGRESS FRAME

COMPANY CONTACT RFQ / PO#

TEL FAX JOB NAME

SHIP ADDRESS CITY STATE ZIP

LEAD TIME ☐ QUOTATION ☐ ORDER PAGE OF



☐ SCHEDULE ATTACHED ☐ BLUEPRINTS ATTACHED

FRAME DATA:

OPENING NO.	QTY	HAND [A]	DOOR OPENING [B] WIDTH (IN)	HEIGHT (IN)	WALL ANCHOR [C]	FIRE LABEL
		RHRA				
		RHRA				
		RHRA				
		RHRA				
		RHRA				
		RHRA				
		RHRA				
		RHRA				

[A] See handing chart, online TECH DATA section, or print catalog p. TD-2.0 (RH, LH, LHR, etc.)
[B] Door opening width measured from jamb rabbet to jamb rabbet.
Door opening height measured from bottom of frame to head rabbet.
[C] Anchors: See online catalog FRAMES section (ANCHORS), or print catalog p. F-11.0 - F-11.2
NOTE: All doors & frames are reinforced for closers
NOTE: All frames receive T6 floor anchors except KDPL

FRAMES:

CONSTRUCTION

MATERIAL

GAUGE ☐ NO SILENCERS

FINISHING:

FINISH

HARDWARE:

LOCATIONS

HINGE SIZE / MFGR. & PART #

☐ EXTRA HEAVY

OTHER HINGE BACKSET

STD Hinge Backset on Frames = 11/32"

LOCK - EXIT DEVICE / MFGR. & PART #

☐ 2-3/4" STRIKE ☐ 4-7/8" STRIKE

FLUSH BOLTS / MFGR. & PART #

OTHER / INSTRUCTIONS:
(Attach separate sheet if necessary)

Keeping You Informed...

This Technical Data section is a reference source designed as tool for the customer, providing a platform to accurately detail, specify, and place orders for both basic and complex projects.

As always, we're available to personally assist you with any questions or comments you may have.

Section Contents

Stiles Standard Hardware Locations	TD-1.0
Hinge Layout	TD-1.1
Door Handing Chart	TD-2.0
Conversion Charts	TD-3.0

More Information Available Online

www.stilesdoor.com

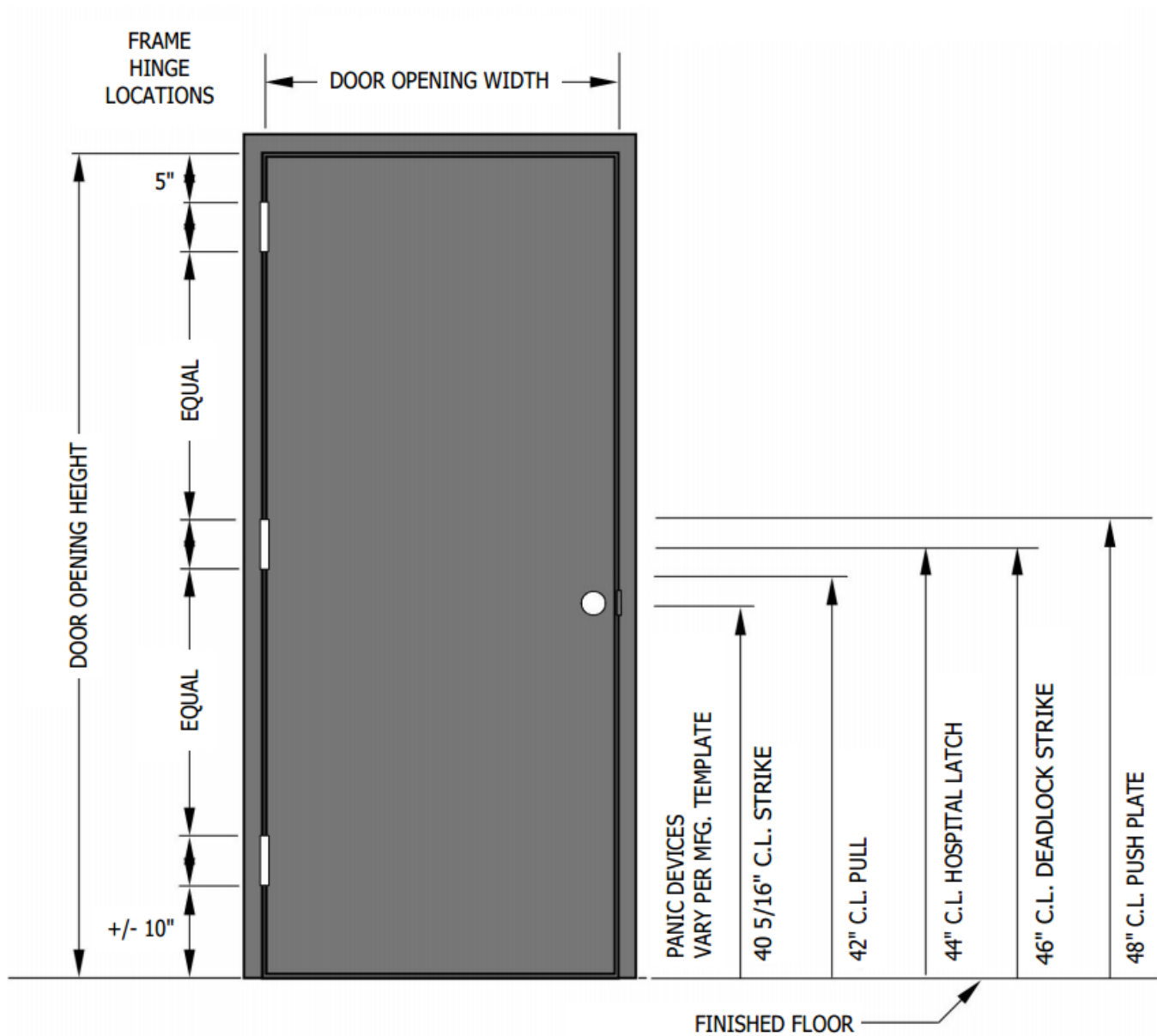
Tech Data Online Downloads

- Common Hardware Finishes
- Glass Basics
- Glass Cleaning Guidelines
- Glass Installation Guidelines
- Glossary of Terms
- Installation & Storage of Hollow Metal Doors & Frames
- Installation Recommendations for H/M Windows, Transoms, & Sidelites
- Safety Glazing Requirements
- Security Glazing Products Guide
- Stiles Patina Finish Guide
- Stiles Testing Standards

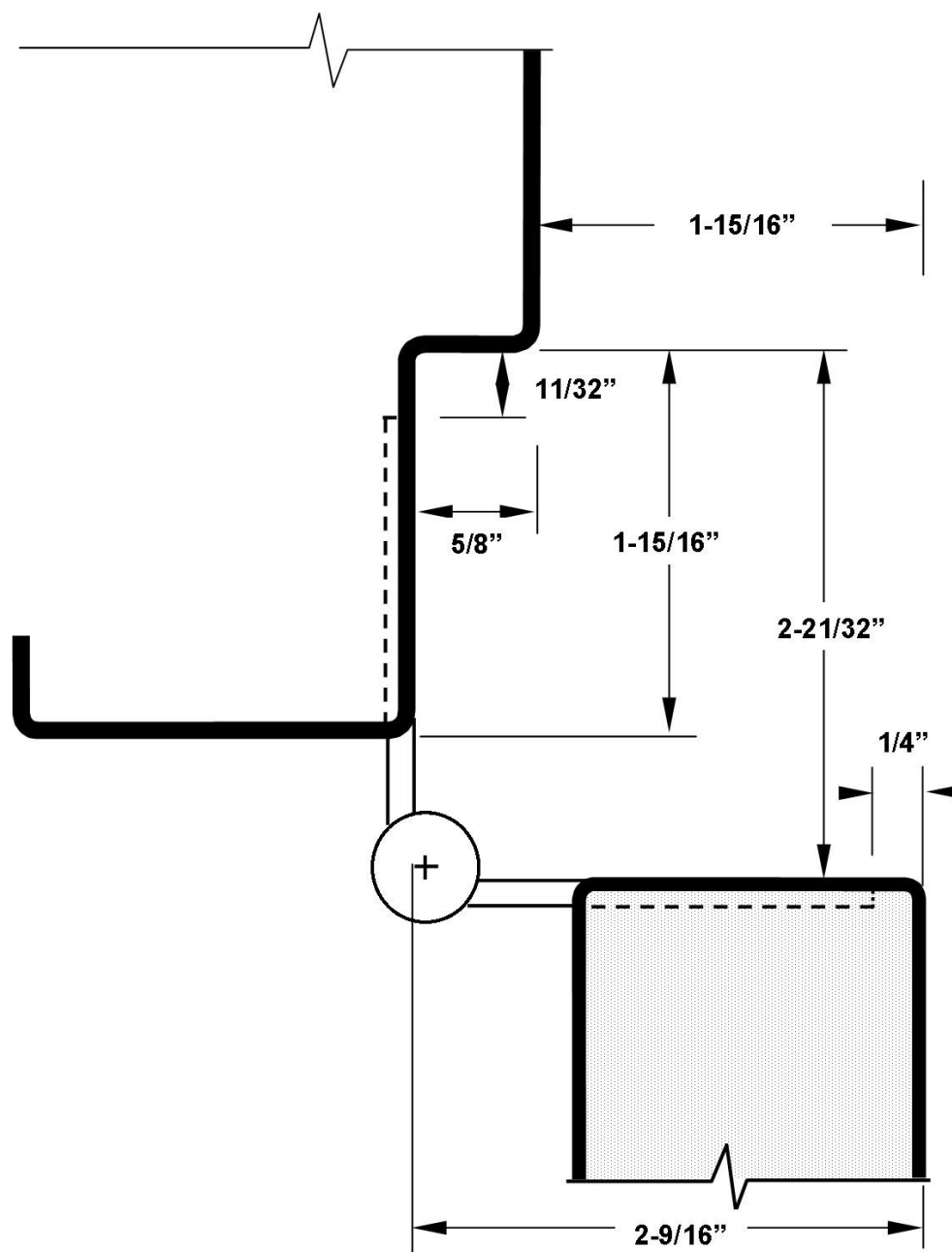
Built to Order.[™]

This image shows a full page of blank graph paper. The background is a very light gray, and it is covered by a precise grid of thin, medium-gray lines. The grid consists of small, equal-sized squares that extend across the entire area of the page, leaving no margins or other markings.

STILES STANDARD HARDWARE LOCATIONS
(Meets Title 24 & ADA)

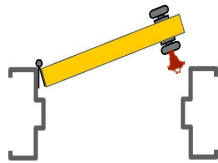


Layout for Standard Door & Frame with 4-1/2" Hinge

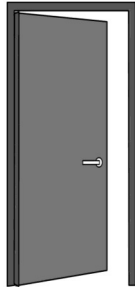


SINGLE DOORS

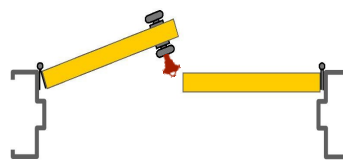
LEFT HAND



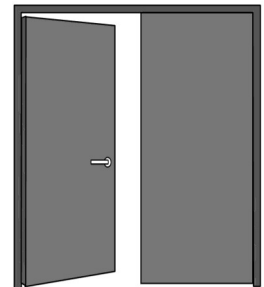
KEY SIDE



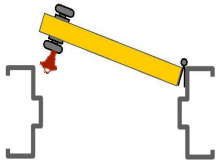
LEFT HAND ACTIVE



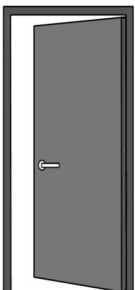
KEY SIDE



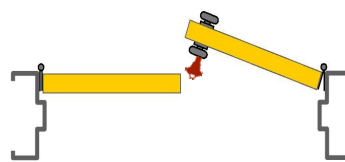
RIGHT HAND



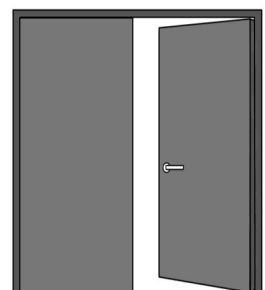
KEY SIDE



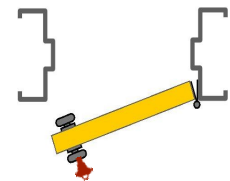
RIGHT HAND ACTIVE



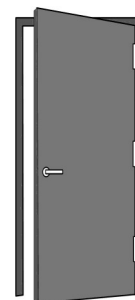
KEY SIDE



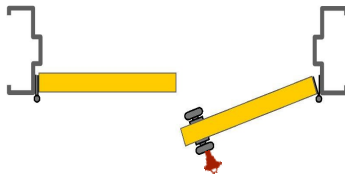
RIGHT HAND REVERSE



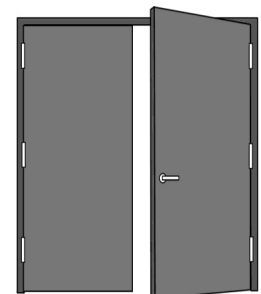
KEY SIDE



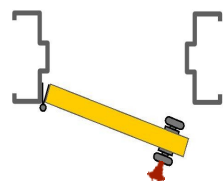
RIGHT HAND REVERSE ACTIVE



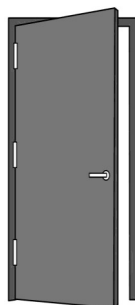
KEY SIDE



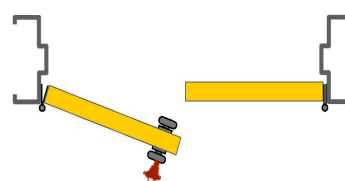
LEFT HAND REVERSE



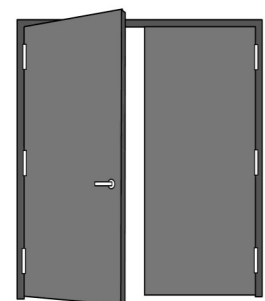
KEY SIDE



LEFT HAND REVERSE ACTIVE



KEY SIDE



Prior to 1970, sheet steel was referred to by gage (or gauge). ASTM and ANSI currently do not list gage numbers in their standards. The values shown were taken from the Underwriters Laboratories, Inc. publication for gage number and equivalent thickness.

Sheetmetal Minimum Thickness Uncoated Steel Sheet		
Gage	Decimal	mm
4	0.214	5.4
5	0.199	5.0
6	0.184	4.6
7	0.167	4.2
8	0.152	3.8
10	0.123	3.1
12	0.093	2.3
14	0.067	1.7
16	0.053	1.3
18	0.042	1.0
20	0.032	0.8
22	0.026	0.6
24	0.02	0.5
26	0.016	0.4
28	0.013	0.3

Conversion		
Fraction	Decimal	mm
	1.000	25.4
15/16	0.937	23.8
7/8	0.875	22.2
13/16	0.812	20.6
3/4	0.750	19.0
11/16	0.687	17.4
5/8	0.625	15.8
9/16	0.562	14.2
1/2	0.500	12.7
7/16	0.437	11.1
3/8	0.375	9.5
5/16	0.312	7.9
1/4	0.250	6.3
3/16	0.187	4.7
1/8	0.125	3.1
1/16	0.062	1.5

English to Metric Conversion		
Convert From	Convert To	Multiply By
Length		
inches	millimeters	25.40
inches	centimeters	2.54
inches	meters	0.0254
feet	meters	0.3048
yards	meters	0.9144
miles	kilometers	1.60934
Square		
square yards	square meters	0.8361
square feet	square meters	0.09290
square inches	square mm's	645.2
square inches	square meters	0.00064516
Liquid		
US gallons	liters	3.785
fluid ounces	milliliters	29.57353
WEIGHT		
pounds	kilograms	0.4536