

PAC-TITE WR Gutter

Prefabricated Gutter and Downspout Systems



Superior, Tested, Attractive Roof Drainage

Superior roof drainage, easy installation, and attractive appearance make PAC-TITE prefabricated gutters and downspouts stand out from the crowd.

Prefabricated PAC-TITE WR Gutters are specifically engineered and tested to meet the requirements of the ANSI/SPRI GT-1 Standard for Gutter Systems Used with Low-Slope Roofs. The design incorporates an extruded internal gutter hanger for strength and support. It also reduces the torque of the metal with expansion and contraction in temperature changes.

FEATURES

- ▶ 30 Year, 160 MPH Wind Warranty
- ▶ ANSI/SPRI GT-1 Tested to Comply with International Building Code
- ▶ FM Approved for Wind Uplift Protection
- ▶ Pre-Punched Holes and No External Brackets=Less Installation Time
- ▶ Prefabricated Miters and Accessories Eliminate Need for Field Fabrication
- ▶ Variety of Colors, Sizes & Materials

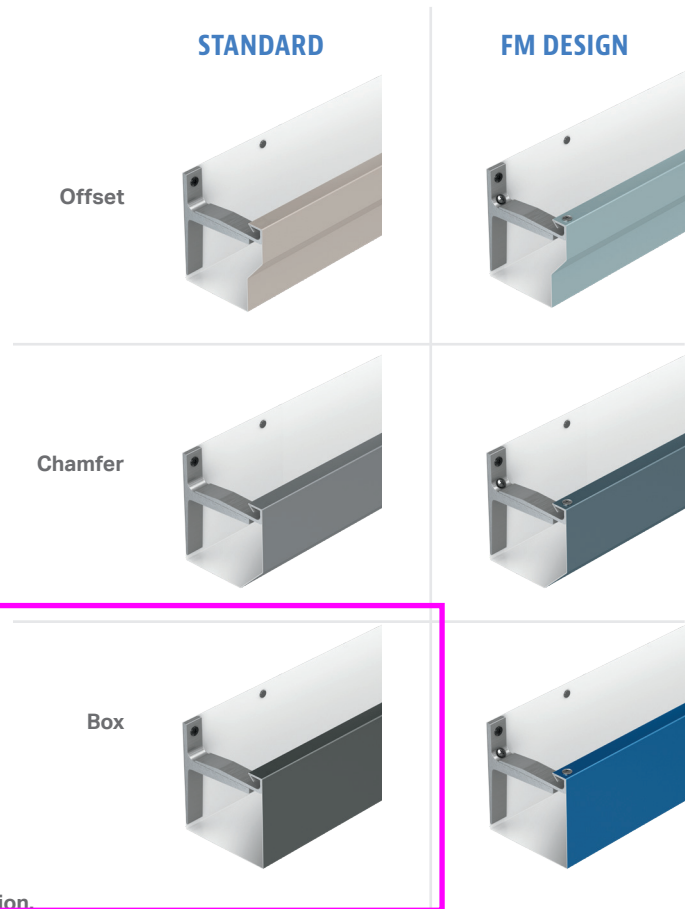
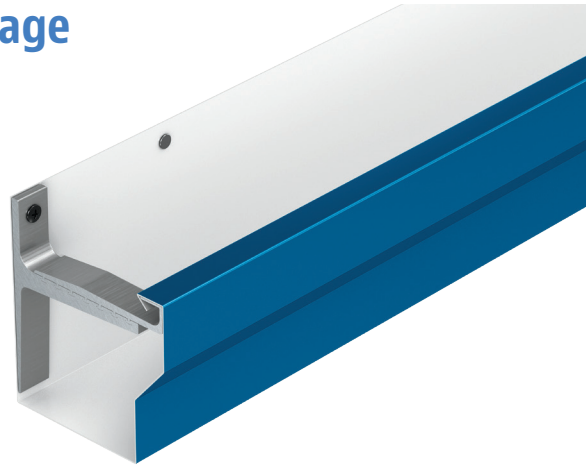
STANDARD SIZES

(Front / Bottom / Back)

- ▶ 5.25" / 5.25" / 6.25" ▶ 6.75" / 6.75" / 7.75"
- ▶ 5.75" / 5.75" / 6.75" ▶ 7.25" / 7.25" / 8.25"
- ▶ 6.25" / 6.25" / 7.25" ▶ 7.75" / 7.75" / 8.75"

MATERIALS

- ▶ 24 ga. Steel ▶ 050" Aluminum
- ▶ 22 ga. Steel ▶ 063" Aluminum
- ▶ 040" Aluminum

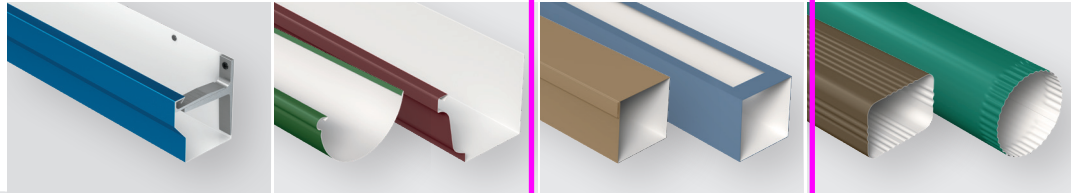


NOTE: FM Approved Design has an alternative bracket configuration.



PAC-TITE WR Gutter

Prefabricated Gutter and Downspout Systems



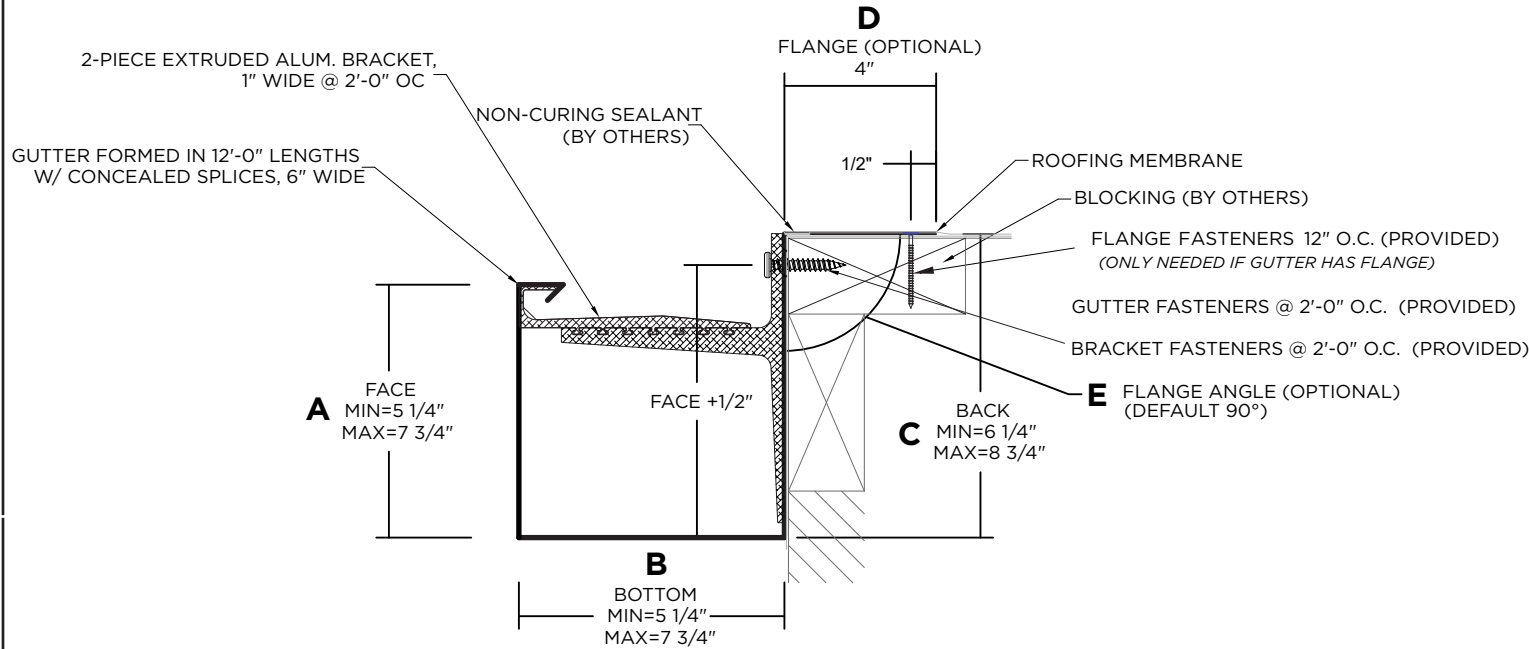
Product Line	WR Gutters	LT Gutters	Industrial Downspouts	LT Downspouts
Versions	<ul style="list-style-type: none"> · Offset · Chamfer · Box 	<ul style="list-style-type: none"> · Half Round · K-Style 	<ul style="list-style-type: none"> · Closed · Open Face 	<ul style="list-style-type: none"> · Corrugated · Round
Sizes	<p>Bottom Width & Front Height: 5.25", 5.75", 6.25", 6.75", 7.25", 7.75"</p> <p>Back Height: 1" More Than Front Height</p>	<p>Half Round: 5", 6", 7", 8", 9", 10" (Diameter)</p> <p>K-Style: 6", 7", 8" (Width)</p>	<p>Width: Min. 3" Max. 10"</p> <p>Depth: Min. 3" Max. 10"</p>	<p>Round: 3", 4", 5", 6", 8" (Diameter)</p> <p>Corrugated: 3" x 4" and 4" x 5"</p>
Materials	24 ga., 22 ga. .040", .050", .063"	24 ga., 22 ga. .032", .040", .050"	24 ga., 22 ga. .040", .050", .063"	24 ga., 22 ga. .032", .040", .050"
Warranty	30 Year, 160 MPH	10 Year, 90 MPH	5-Year Workmanship	5-Year Workmanship
ANSI/SPRI GT-1 Tested	X		N/A	N/A
FM Approved	X		N/A	N/A



PAC-TITE WR GUTTER BOX

NOTES

- Bottom sizes are provided in 1/2" increments
- Maximum downspout dimension not to exceed "B" minus 9/16"
- Roof flange is optional. If flange size is not provided, the gutter will not include a roof flange. If flange angle is not provided, the gutter will have a 90-degree flange.
- Pop rivets provided
- Unless otherwise noted, fabrication of miters and accessories are provided with a non-penetrating quicklock joint, then factory sealed watertight
- Welded accessories require minimum material thickness of .050 aluminum.
- For non-90 miters, see separate print approval
- Product should be installed per provided installation instructions
- ANSI/SPRI GT-1 Test Pressure up to 223 psf (Horizontal) and 136 psf (Vertical)



APPROVALS

ANSI/SPRI/GT-1
Test Pressures listed in notes

PROJECT INFO

Project Name: _____

Architect: _____

Roofing Contractor: _____

Project Type:

By selecting this box you have verified and confirmed that dimensions, sizes, and quantities are correct. All products will be installed in strict accordance with printed instructions.

Date: _____

Petersen Aluminum Corporation
Phone: 800-323-1960
Fax: 800-722-7150
www.pac-clad.com
e-mail: info@pac-clad.com

SHT #: _____ of _____

DATE: **06/20/25**

DRN BY : **PL**

CKD BY : **MM**

DWG # : **41012-38994**

REV: **B**

DIMENSIONS

SELECT SIZE	A (FACE)	B (BOTTOM)	C (BACK)	FLANGE (OPTIONAL)
<input type="checkbox"/>	5 1/4"	5 1/4"	6 1/4"	D (FLANGE) PLEASE SELECT ONE: WITH FLANGE <input type="checkbox"/> WITHOUT FLANGE <input type="checkbox"/>
<input type="checkbox"/>	5 3/4"	5 3/4"	6 3/4"	NOTE: IF NEITHER BOX IS CHECKED, THE GUTTER WILL BE PROVIDED WITHOUT A ROOF FLANGE
<input type="checkbox"/>	6 1/4"	6 1/4"	7 1/4"	E (FLANGE ANGLE) NOTE: IF ANGLE IS NOT PROVIDED, FLANGE WILL BE 90°
<input type="checkbox"/>	6 3/4"	6 3/4"	7 3/4"	
<input type="checkbox"/>	7 1/4"	7 1/4"	8 1/4"	
<input type="checkbox"/>	7 3/4"	7 3/4"	8 3/4"	

MATERIAL

- 24 Ga. Galv. Steel Color: _____
- 22 Ga. Galv. Steel Finish: _____
- .040" Aluminum
- .050" Aluminum
- .063" Aluminum
- OTHER: _____
- Substrate: Wood
If substrate is not given, wood fasteners will be provided. Masonry
 Metal

QUANTITIES

_____ Lineal Feet (12'-0" Lengths)

_____ Outside Miter (90°)

_____ Inside Miter (90°)

_____ Right Endcaps

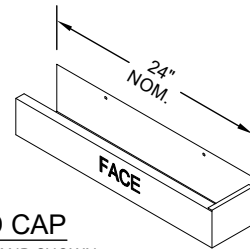
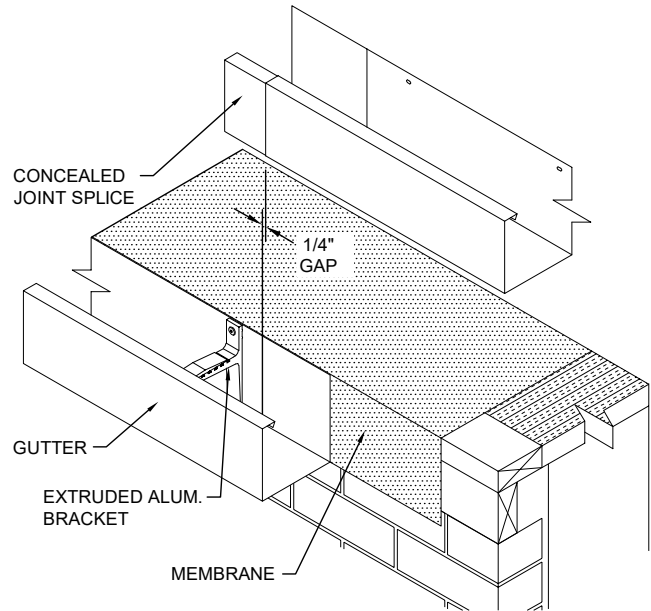
_____ Left Endcaps

_____ Expansion Joints (If Required)

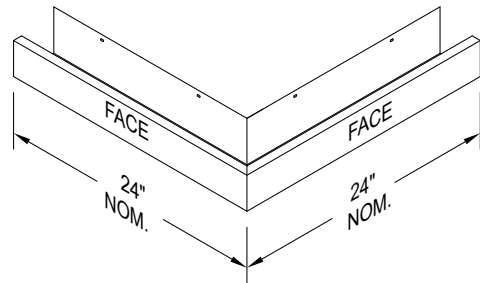
Accessory Type: Quicklock (Default) Welded (Surcharge)

PAC-TITE WR GUTTER

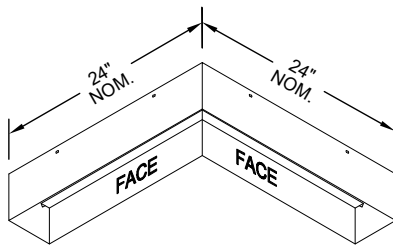
BOX STANDARD ACCESSORIES



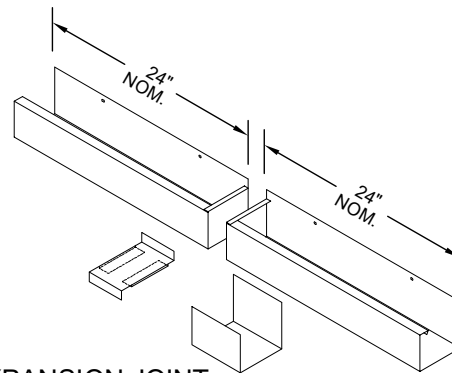
END CAP
LEFT HAND SHOWN



OUTSIDE MITER



INSIDE MITER



EXPANSION JOINT
(IF REQUIRED)

Standard gutter miter leg lengths are 24" Nominal
Standard gutter miter angle is 90°
For special miter requirements, attach sketches or consult manufacturer for assistance.

SHT #: _____ of _____

DATE: **06/20/25**

DRN BY : **PL**

CKD BY : **MM**

DWG # : **41012-38994**

REV: **B**

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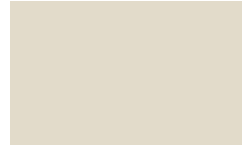


PAC-CLAD®

P E T E R S E N

A **CARLISLE** COMPANY

Color Guide



▲\$ SANDSTONE



▲\$ SIERRA TAN



▲\$ DARK BRONZE



▲\$ BURNISHED SLATE



\$ MIDNIGHT BRONZE



▲\$ MANSARD BROWN



▲\$ CHARCOAL



▲\$ GRAPHITE



✘\$ ONYX (fka Matte Black)



\$ TRADITIONAL BLACK



▲\$ CARDINAL RED



▲✘\$ MILITARY BLUE



\$ AWARD BLUE



▲\$ HEMLOCK GREEN



\$ FOREST GREEN



▲✘\$ PATINA GREEN

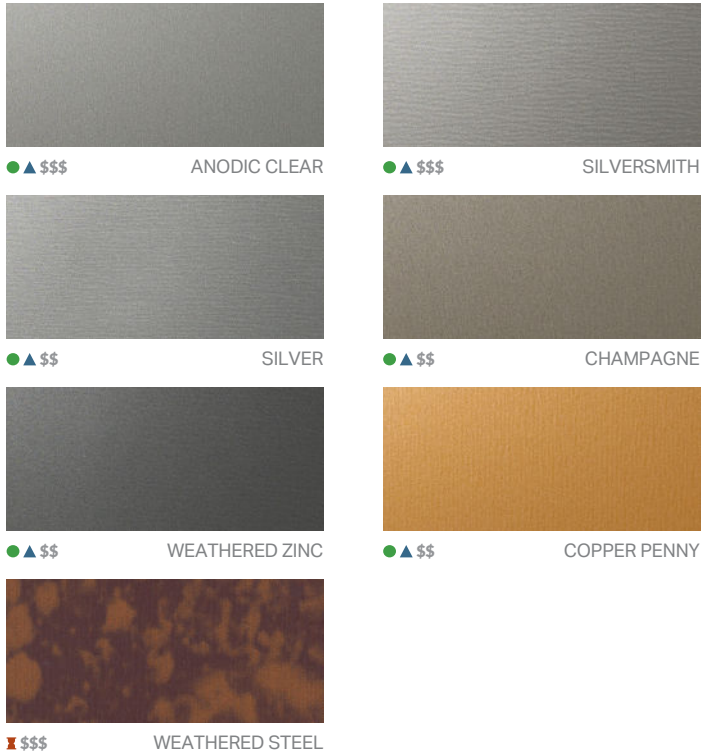


✘\$ HARTFORD GREEN



\$ GALVALUME PLUS

Premium Colors



Timber Series Wood Grain

Available in 24 gauge steel and .032 aluminum



70% polyvinylidene fluoride (PVDF) pre-finished steel and aluminum for all architectural cladding applications

● Metallic Colors \$ Pricing ▲ Cool Colors ✘ Extended Lead Time

See back for color performance and availability chart

Standard Colors



IL: 800 PAC CLAD TX: 800 441 8661 MD: 800 344 1400
AZ: 833 750 1935 GA: 800 272 4482 WA: 833 750 1935

Performance and Availability

STANDARD COLORS	REFLECTIVITY	EMISSIVITY	3 YEAR EXPOSURE	SRI	STEEL			ALUMINUM			20-IN. COIL	
					24 GA.	22 GA.	.032	.040	.050	.063	24 GA.	.032
AWARD BLUE †	0.25	0.86	0.23	24	✓		✓					
BLACK (FKA BLACK ALUMINUM)	0.05	0.90	0.04	0	✓	✓	✓	✓	✓	✓	✓	✓
BONE WHITE	0.70	0.86	0.69	85	✓	✓	✓	✓	✓	✓	✓	✓
BURNISHED SLATE	0.32	0.86	0.31	33	✓						✓	
CARDINAL RED †	0.44	0.86	0.44	49	✓		✓				✓	✓
CHARCOAL	0.30	0.87	0.30	31	✓		✓	✓	✓		✓	✓
CITYSCAPE	0.05	0.87	0.50	57	✓	✓	✓	✓	✓		✓	✓
CLASSIC BRONZE * NEW	0.27	0.87	N/A	27	✓						✓	
COLONIAL RED	0.34	0.87	0.31	36	✓		✓	✓	✓		✓	✓
DARK BRONZE	0.27	0.86	0.29	26	✓	✓	✓	✓	✓	✓	✓	✓
FOREST GREEN	0.10	0.88	0.10	5	✓		✓	✓			✓	✓
GRANITE *	0.32	0.86	0.33	33	✓	✓	✓	✓	✓			✓
GRAPHITE	0.25	0.86	0.28	24	✓						✓	
HEMLOCK GREEN	0.31	0.87	0.30	32	✓		✓				✓	
INKWELL * NEW	0.27	0.86	N/A	26	✓						✓	
INTERSTATE BLUE	0.16	0.87	0.15	12	✓		✓		✓		✓	✓
IRON ORE NEW	0.27	0.87	N/A	27	✓		✓	✓	✓		✓	✓
MANSARD BROWN	0.31	0.87	0.31	32	✓		✓	✓	✓		✓	✓
MEDIUM BRONZE	0.30	0.88	0.29	31	✓	✓	✓	✓	✓	✓	✓	✓
MIDNIGHT BRONZE	0.06	0.90	0.06	1	✓			✓			✓	
MUSKET GRAY	0.32	0.87	0.31	33	✓	✓	✓		✓		✓	✓
PACIFIC BLUE (fka SLATE BLUE)	0.28	0.87	0.27	28	✓		✓				✓	✓
SANDSTONE	0.48	0.87	0.48	55	✓	✓	✓	✓	✓	✓		
SIERRA TAN	0.38	0.85	0.31	40	✓	✓	✓	✓	✓		✓	✓
SLATE GRAY	0.41	0.87	0.37	45	✓	✓	✓	✓	✓		✓	✓
STONE WHITE	0.69	0.86	0.67	84	✓	✓	✓	✓	✓	✓		
TERRA COTTA	0.35	0.87	0.33	37	✓		✓	✓	✓	✓		✓
TRADITIONAL BLACK * NEW	0.28	0.87	N/A	28	✓		✓				✓	✓
EXTENDED LEAD TIME												
AGED BRONZE	0.29	0.87	0.27	29	✓						✓	
ALMOND	0.63	0.85	0.55	75	✓	✓	✓	✓	✓			
ANTIQUE BRONZE NEW	0.28	0.86	N/A	27	✓		✓	✓			✓	✓
BERKSHIRE BLUE *	0.29	0.86	0.27	29	✓							
BUCKSKIN NEW	0.37	0.86	N/A	39	✓						✓	✓
BURGUNDY	0.24	0.86	0.13	22	✓						✓	
HARTFORD GREEN	0.08	0.88	0.08	3	✓			✓			✓	
MILITARY BLUE	0.31	0.87	0.30	32	✓		✓				✓	✓
ONYX (fka MATTE BLACK STEEL)	0.26	0.85	0.25	24	✓	✓					✓	
PATINA GREEN	0.33	0.86	0.32	34	✓							
WEATHERED STEEL 🏰	0.26	0.86	N/A	25	✓							
PREMIUM COLORS												
ANODIC CLEAR 🏰	0.53	0.81	0.31	60				✓				
CHAMPAGNE 🏰	0.40	0.78	0.49	40	✓		✓	✓	✓			✓
COPPER PENNY 🏰	0.50	0.86	0.52	57	✓		✓	✓	✓		✓	✓
SILVER 🏰	0.47	0.82	0.46	52	✓	✓	✓	✓	✓		✓	✓
SILVERSMITH 🏰	0.54	0.81	0.32	61			✓	✓				
WEATHERED ZINC 🏰	0.24	0.83	0.46	21	✓		✓		✓		✓	✓
CLEAR-COAT ACRYLIC FINISH (NON-PVDF)												
GALVALUME PLUS	0.68	0.14	0.55	57	✓	✓					✓	

PAC-CLAD Premium finishes are available from stock at a moderate extra cost. PAC-CLAD Copper Penny is a Non-Weathering finish. Solar Reflectance Index calculated according to ASTM E-1980. Reflectivity and solar reflectance index (SRI) values are provided by Sherwin-Williams®.

* Low Gloss/Low Sheen, 70% PVDF finish † 10-year finish warranty 🏰 Premium Colors

TECHNICAL DATA FOR 70% PVDF COATING:

- ▶ South Florida Exposure: Color (ASTM D 2244) - No more than 5ΔE Hunter units at 20 years; Chalk (ASTM D 4214) - Rating no less than 8 at 20 years; Film integrity - 20 years.
- ▶ Accelerated Weathering (ASTM D 4587, ASTM G 154): 5000 Hours; Chalk, per ASTM D 4214, rating of 6 or better; Color, per ASTM D 2244, < 5ΔE (Hunter Units) color change.
- ▶ Chemical/Acid Pollution Resistance (ASTM D 1308): Pass

- ▶ T-Bend (ASTM D 4145): 1T - 3T with no loss of adhesion
- ▶ Humidity Resistance (ASTM D 2247): Galvalume or HDG, 100% RH, 2000 hours - No field blisters; Aluminum, 100% RH, 3000 hours - No field blisters
- ▶ Salt Spray Resistance (ASTM B 117): Aluminum: 3000 hours, creep from scribe no more than 1/16" (2mm), no field blisters. Galvalume or HDG: 2000 hours, creep from scribe no more than 1/8" (4mm), no field blisters

- ▶ Pencil hardness (ASTM D 3363): HB - 2H
- ▶ Specular Gloss (ASTM D 523) @ 60 degrees: Typical - 20 - 35
- ▶ Abrasion Resistance (ASTM D 968): 80 Liters/Mil +/- 5 Liters
- ▶ Cross Hatch Adhesion (ASTM D 3359): No loss of adhesion
- ▶ Reverse Impact (ASTM D 2794): Galvalume or HDG, 2x metal thickness inch-pounds, no loss of adhesion; Aluminum, 1.5x metal thickness inch-pounds, no loss of adhesion
- ▶ Flame Test (ASTM E 84): Class A Coating

PAC-CLAD® is a registered trademark of Petersen Aluminum Corp. The PAC-CLAD finish is 70% polyvinylidene fluoride (PVDF). Sherwin-Williams® is a trademark of SWIMC LLC. Galvalume Plus® is a registered trademark of BIEC International. 10/25

SAP 614844



ALLEGION™

STEELCRAFT®

Hollow metal
doors and
frames





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STEELCRAFT®

Steel doors and frames that set the industry standard

No other manufacturer offers as robust a selection of steel doors and frames as Steelcraft. Our emphasis on design, performance, and quality makes us stand out as an industry leader. Whether your application is institutional, commercial, or industrial Steelcraft is ready to meet your needs with a full portfolio of trusted, reliable doors and frames.

Steelcraft locations

Main factory

Steelcraft operates a main factory, boasting over 550,000 sq ft in Blue Ash, OH. This facility includes most of the Steelcraft Customer Care, Operations, Engineering teams and supplies a complete portfolio of doors and frames, with a full set of service capabilities, to reliably meet the requirements of your projects.

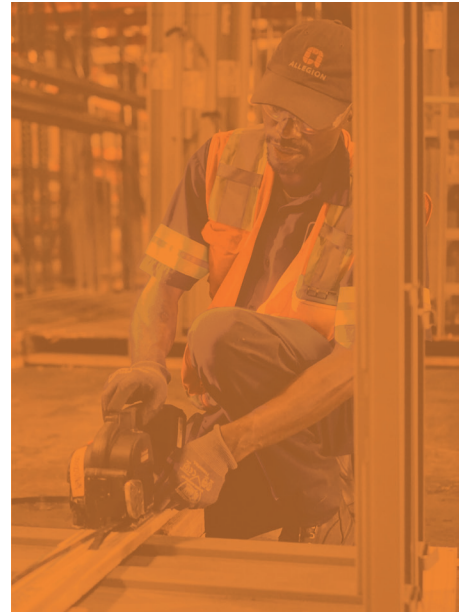
Regional Centers

In addition to the main facility, Steelcraft operates regional centers in California and Kansas to serve local clients with prompt service and dedicated support. Steelcraft's Regional Centers are stocked with a wide variety of doors and frames for your regional market needs. The experienced staff at our Regional Centers have onsite modification capabilities to pull from existing stock and quickly fulfill orders. Each center has stock and capabilities tailored to regional market preferences.

- **West Coast Regional Manufacturing Center** offers custom frame manufacturing
- **Kansas City Service Center** stocks Tornado resistant frames for fast-turn applications

All orders can be picked up at the service center or shipped directly to your site, resulting in lower freight costs. Each center is backed by the factory in Blue Ash to ensure that all the known, trusted Steelcraft benefits are available to you.

Visit www.steelcraft.com for details and a full list of capabilities by regional center.



Contact us

Customer care and project inquiries

- (877) 671-7011
- Contactus@allegion.com

Technical product support

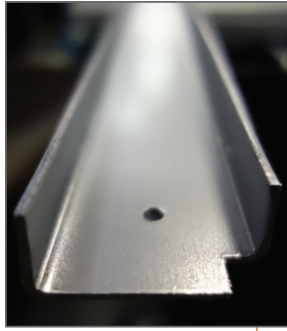
- (877) 671-7011
- Doors_frames_techprodsupport@allegion.com

NOTE: Reach out to your local Allegion sales representative for information on Order Entry Works (OEW) electronic ordering.

The only door good enough to be called Steelcraft



Recessed Designer™ glass trim



Heavy 14-gauge top and bottom channels



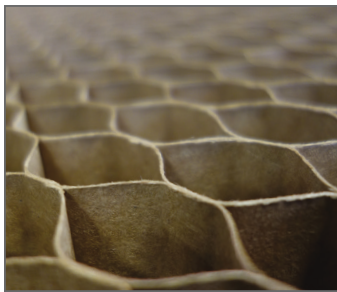
- Factory installed screw-in flush top and bottom caps
- Optional seamless vertical edges



Universal hinge preparations with true 7-gauge reinforcements



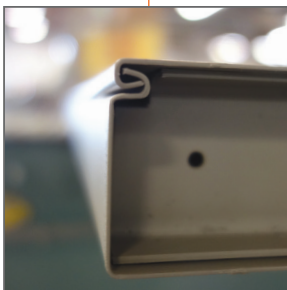
Mortise lock body stabilizers



Structural honeycomb core design

Optional cores:

- Polystyrene
- Polyurethane
- Steel stiffened - fiberglass batts
- Temp rise mineral fiber board



- Beveled hinge and lock edges
- Full height, epoxy-filled mechanical interlock edges



61L cylindrical lock and many other standard hardware preps

Standard door construction features and benefits

- **Beveled hinge and lock edges** Tighter tolerances and opening fit with a $\frac{3}{32}$ " gap, ensuring easier operation and eliminating binding and sticking; max allowable meeting edge gap is $\frac{3}{16}$ " (per NFPA 80 allowable gap $\frac{1}{8}$ " + $\frac{1}{16}$ " tolerance)
- **Full height, epoxy-filled mechanical interlock edges** Structural support and stability the full height of the door
- **Universal hinge preparations** Patented design creating fast and easy field conversion from the standard weight .134" to heavy weight .180" hinges
- **True 7-gauge hinge reinforcements** Strong internal support for hinges to keep the door from sagging during everyday use and abuse
- **Recessed Dezigner™ glass trim** Interior welds and fasteners, inset into a recessed perimeter channel for a clean, neat, and flush finish
- **Screwed-in top caps** Flush cap installed into top and bottom channels for additional protection from the elements, dirt and debris
- **Heavy 14-gauge top and bottom channels** Performance and stability for the top and bottom door edges
- **Seamless edge** Option creating a finished, one-piece look with clean lines
- **Mortise lock body stabilizers** Easier installation by centering the lock body in the door
- **61L cylindrical lock preparation** Universal features accommodate any cylindrical lock in the market with a $3\frac{7}{16}$ " or larger rose
- **Structural honeycomb core design** Greater structural integrity than steel stiffened doors while reducing overall weight, successfully tested to 10,000,000 cycles including 23 twist tests using 300 pounds of applied force. Optional cores for better insulating value include polystyrene, polyurethane, steel stiffened with fiberglass batting, and temperature rise mineral fiber board.
- **Factory applied baked-on rust inhibiting primer** Provides the best possible protection against corrosion, abrasion and weather, and is an excellent base for our finish paint in standard or custom colors. In accordance with ANSI A250.10-1998 (R2004).

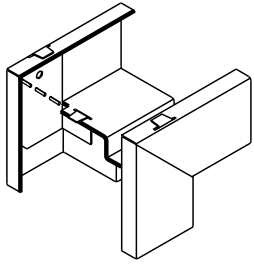


Frames

Steelcraft manufactures a wide variety of frames in jamb depths for virtually any wall condition or entryway requirement.

Flush frames

Flush (F, FE and FN Series) frames are designed to be installed as part of the wall framing sequence for exterior and interior walls of wood stud, steel stud and masonry construction. Frames are manufactured from 16-, 14- and 12-gauge (F only) commercial-quality carbon steel in cold-rolled, A60 galvanized and G90 galvanized steel. Flush frame corners in 16 and 14 gauge may lock together by bending over four integral tabs, and may also be welded and ground smooth.

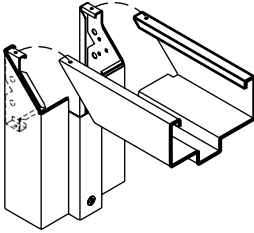


Multiple use frames

Multiple use (MU Series) frames have a jamb profile similar to drywall frames but are designed to be installed as part of the wall framing sequence. MU Series frames are available in 16- or 14-gauge cold-rolled, A60 galvanized or G90 galvanized steel.

Drywall frames

Drywall (DW, K, C and CK Series) frames are designed to be installed in rough openings after the wall is constructed. They can be installed in minutes and can be relocated without damage to the frame. Drywall frame corners lock together once the frame is assembled. The tab design prohibits the head from raising, and keeps the head and jamb members in the same plane. C and CK frames do not have backbends and are designed to have architectural trim casing applied.

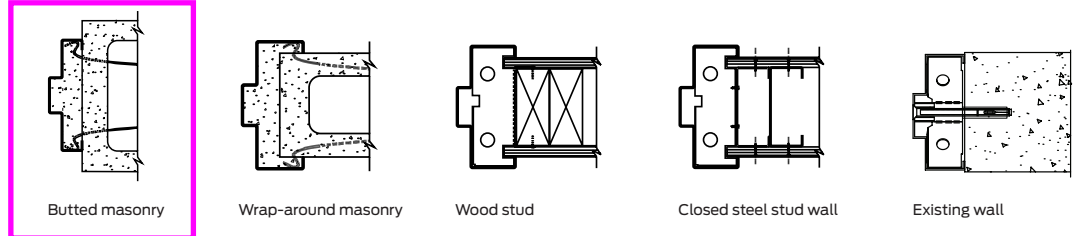


Specifications

Door thickness	1 ³ / ₄ " (45mm)		
Standard heights	6'8" (2032mm)	7'0" (2134mm)	7'2" (2184mm)
	8'0" (2438mm)	9'0" (2743mm)	10'0" (3048mm)
Standard widths	Increments of 2" (50mm) from 1'6" (457mm) to 8'0" (2438mm)		

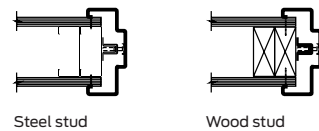
Custom sizes per request.

Typical wall conditions – F and FN Series



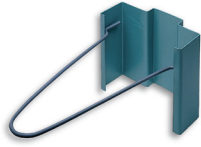
Typical wall conditions – DW and K Series

Drywall frames are designed for drywall construction using wood studs or steel studs. DW and K Series frames are available in 16- or 14-gauge cold-rolled, A60 galvanized or G90 galvanized steel.



Frames

Anchors – F and FN Series



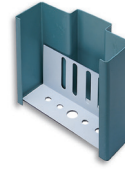
Adjustable wire anchor for masonry



Wood stud anchor



Closed steel stud anchor



Adjustable base anchor - F, FN and C

Anchors – DW and K Series



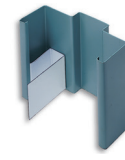
Lock in base anchor – DW Series



Quick and easy base anchor - K and CK Series

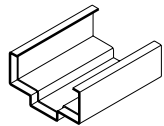


Compression anchor - DW, K and CK Series

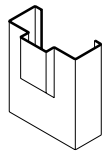


Optional security anchor

Design options

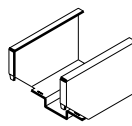


14-gauge closer reinforcing sleeve

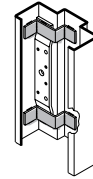


Hospital stop

(F, FN, DW, and MU Series only)



4" face head



High frequency hinge reinforcement

10-gauge high frequency reinforcement (F, MU, DW and FE Series only)

Frame profiles



F Series



MU Series



FE Series



DE Series



DW Series



C/CK Series

Relative cost

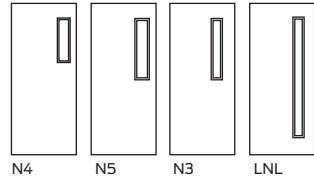
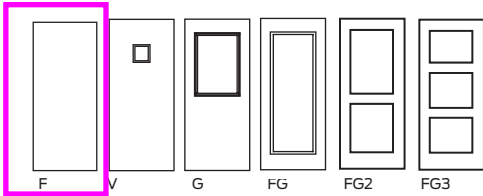
F16, 1³/₄" (45mm), 3'0" (914mm) x 7'0" (2134mm), 5³/₄" (147mm) prime painted, CRS knock down frame used as base of 100.

F16-4	CRS	16-gauge, 1 ³ / ₄ " KD 100
F16-4	CRS 7'2"	16-gauge, 1 ³ / ₄ " KD 102
F16-4	Galvannealed	16-gauge, 1 ³ / ₄ " KD 114
F16-4	Label	16-gauge, 1 ³ / ₄ " KD 116
FN16-4	CRS	16-gauge, 1 ³ / ₄ " KD 100

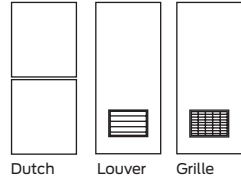
F14-4	CRS	14-gauge, 1 ³ / ₄ " KD 123
F12-4	CRS	12-gauge, 1 ³ / ₄ " KD 161
DW16-4	Drywall	16-gauge, 1 ³ / ₄ " KD 102
MU16-4	Multi-use	16-gauge, 1 ³ / ₄ " KD 102

Typical elevations

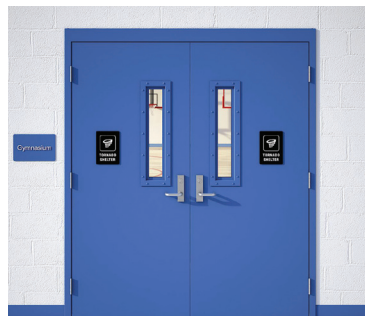
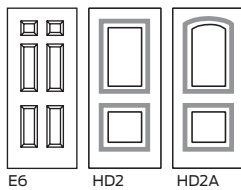
Flush panel and glass doors



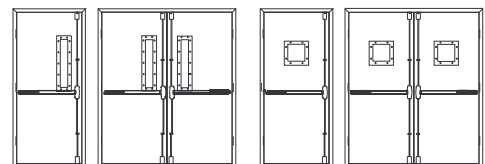
Dutch doors Doors with louvers or grilles



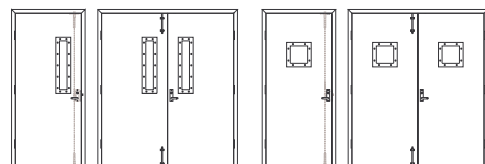
Embossed panel doors



ADA Compliant PN(F) Narrow and PN(F) Vision Lights – WS98/9927, WS98/9957



PN(F) Narrow and PV(F) Vision Lights – LM 9300



Flush doors

Flush doors are defined as having no seams on the face, with seams permitted on the edges. Doors are available in commercial-quality carbon steel or A-60 galvanized steel, G-90 galvanized steel and stainless steel (Type 304 and 316).

L Series

The L Series door has a honeycomb core, beveled hinge, and lock edge with a visible seam on both edges. Optional cores are polystyrene or polyurethane. L Series doors are available in 14-, 16-, 18- and 20-gauge steel.

B Series

The B Series door has a steel-stiffened core with visible seams on the hinge and lock edges. 20-gauge vertical steel stiffeners are welded to the inside of one face sheet and bonded to the opposite face. Void areas between the stiffeners are filled with fiber bat insulation. B Series doors are available in 14-, 16- and 18-gauge steel.

T Series

The T Series doors are designed to meet the requirements for temperature rise fire-rated applications. These doors include the same construction features of the L Series doors, yet include a mineral board core for a 250° or 450° temperature rise rating. T Series doors are available in 14-, 16-, 18- and 20-gauge steel.

CE Series

CE Series are decorative doors featuring deeply embossed panels on both sides, creating the appearance of hand-carved doors. The door includes all construction features of the L Series door and is available with a variety of glass sizes. These doors are available in 16-, 18- and 20-gauge steel.

H Series

H Series hurricane-rated doors offer the utmost in life safety solutions. Each door, frame and hardware configuration offered has been tested and certified as an assembly to meet stringent Florida Building Code, Miami Dade and Texas Department of Insurance standards. With this approach of assembly approval, Allegion offers the assurance of a turnkey solution that is certified as a whole, while also expediting project approval.

Paladin™ Series

The Paladin opening system is designed and tested to ICC 500 standards and FEMA 361/320 guidelines, and those established by the Red Cross to protect the general public from the extreme environmental effects of tornadoes. The severe storm opening system is designed for commercial and residential tornado storm shelters. Paladin options include patented factory installed ADA glass lights from Technical Glass Products (TGP).

Design options

GRAINTECH™

GRAINTECH™ doors are L, T, H or CE Series doors, produced using steel sheets that have been embossed to create a wood grain appearance. GRAINTECH™ doors are fabricated from stainable steel and available with an optional factory finish in six standard color stains, including a factory-applied clear coat with ultraviolet (UV) inhibitors. GRAINTECH™ gives you the look of wood with the durability and fire-rating of a steel door.

Specifications

Door thickness	1 3/4" (45mm)	
Standard heights	6'8" (2032mm)	7'0" (2134mm)
L and B Series	7'2" (2184mm)	8'0" (2438mm)
	9'0" (2743mm)	10'0" (3048mm)
Standard heights	6'8" (2032mm)	7'0" (2134mm)
CE Series	8'0" (2438mm)	
Standard widths	Increments of 2" (50mm)	
L and B Series	from 1'6" (457mm) to 4'0" (1219mm) Custom dimensions available on request	
Standard widths	Increments of 2" (50mm) from	
CE Series	2'6" (762mm) to 3'8" (1118mm)	

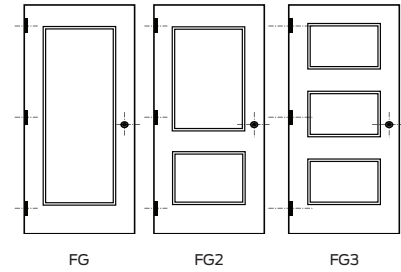
Custom sizes per request.

Full glass entrance doors

Steelcraft heavy-duty A-14 Series doors provide trouble-free service and attractive styling for high traffic areas such as main entrances.

A-14 Series

The A-14 Series doors are designed to meet the architectural requirements for exterior entrance applications. It has a honeycomb core, beveled hinge and seamless edges with full height, epoxy filled with interlocked edges. The A-14 Series doors are available for high frequency openings and entrances where large full glass lights are required.



Specifications

Door thickness	1 3/4" (45mm)	
Standard heights	6'8" (2032mm)	7'0" (2134mm)
A-14 Series	7'2" (2184mm)	8'0" (2438mm)
Standard widths	Increments of 2" (50mm) from 1'6" (457mm)	
A-14 Series	to 4'0" (1219mm)	

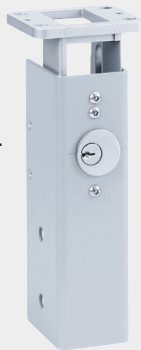
Custom sizes per request.

EXPERT TIPS

Get flexible performance with removable keyed mullions.

Mullions provide single door performance in double door openings with rim exit devices. Keyed removable mullions make removal faster and easier by a single operation of the mortise cylinder. The unit will self-lock when re-installed without the use of a cylinder key.

When ordering, specify KR before the mullion model number.



Relative cost

L18, 1 3/4" (45mm), 3'0" (914mm) x 7'0" (2134mm) flush door used as base of 100.

L18	Flush, 18-gauge	100	B18	Flush, 18-gauge, steel stiffened	125
L20	Flush, 20-gauge	87	B16	Flush, 16-gauge, steel stiffened	149
LF20	Flush, 20-gauge	96	BW16	Flush, 16-gauge, steel stiffened (edge welded)	161
L18	Galvannealed, flush, 18-gauge	113	B14	Flush, 14-gauge, steel stiffened	173
L18	UL flush, 18-gauge	115	CE20	Embossed, 20-gauge	105
L18	Finished paint, flush, 18-gauge	116	CE18	Embossed, 18-gauge	122
LF18	Full flush, 18-gauge (edge filled)	110	CE16	Embossed, 16-gauge	139
LW18	Full flush, 18-gauge (edge welded)	112	L16	Stainable, 16-gauge, factory finished	149
T18	UL temperature rise, 18-gauge	154	L18	Stainable, 18-gauge, factory finished	143
L16	Flush, 16-gauge	123			
LF16	Flush, 16-gauge (edge filled)	133			
LW16	Flush, 16-gauge (edge welded)	139			
L14	Flush, 14-gauge	148			

GRAINTECH™ doors

Clear coat
baked on for the ultimate in UV and graffiti resistance

Multiple finishes
provide options for a variety of applications

Superior structural and insulation
qualities provide ultimate performance



Custom colors available for our GRAINTECH doors.

Dezigner™ trim
flush lite kits, stained to match the door

Patented universal hinge preps
allow for easy field conversion from standard to heavy-weight hinges

Strength and durability
L, T, H and CE Series door construction provides proven strength and reliability

The beauty of wood with the strength of steel

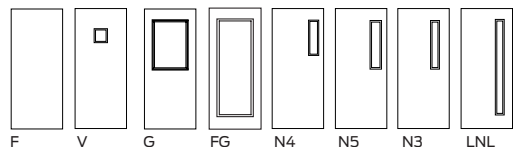
Steelcraft's GRAINTECH Series of stainable steel doors provides the beauty of wood with the features and benefits of steel. Our exclusive engraving and staining process simulates a wide variety of wood finishes, from ash to walnut, including custom finish matching.

GRAINTECH doors are available in a wide variety of options including size, glass lite designs, gauges and hardware preps, and are designed for interior and exterior applications.

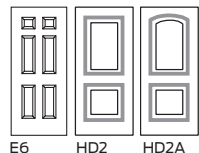
Unlike veneered or solid wood doors, GRAINTECH can be used as exterior openings with confidence, is less susceptible to damage, and will never warp, crack, peel or bow. It is also available in CE Series panel doors, L Series flush doors, T Series temperature rise doors, and H Series hurricane doors. The GRAINTECH Series is available with a full range of positive pressure fire-ratings, from 20 minutes to three hours.

Glass lite options

Flush doors (L Series and T Series)



Embossed panel doors (CE Series)



CE Series GRAINTECH doors

- Six-panel embossed design
- Available in 16-gauge heavy-duty or 18-gauge extra heavy-duty
- Available in six standard finishes, as well as custom-matched finishes
- Half-glass and top-lite available featuring Dezigner trim, a Steelcraft exclusive
- Polystyrene core system for structural integrity
- Fire-rated 20 minutes to three hours

L Series GRAINTECH Doors

- Laminated flush design
- Available in 16 or 18-gauge to fit any application from standard to extra heavy-duty
- Available in six standard finishes, as well as custom-matched finishes
- Half-glass, narrow lite, vision lite or custom size lites featuring Dezigner trim, a Steelcraft exclusive
- Available with honeycomb, polystyrene or polyurethane insulated cores

T Series GRAINTECH doors

- Temperature rise-rated full-flush design
- Available in 16 or 18-gauge to fit any application from standard to extra heavy-duty
- Available in six standard finishes as well as custom matched finishes
- Mineral board core provides a 250° or 450° temperature rise-rating



Mahogany Birch Ash Maple Oak Walnut



Severe weather doors

Tough weather protection

Whether you're in a coastal area subject to hurricane-force storms, or in one of the many areas across the country at risk for tornadoes, Steelcraft offers a tough, dependable solution. Our Paladin tornado doors and H Series hurricane-rated doors are built to exacting standards that provide peace of mind and protection when it's needed most.

Standard construction

- **A60 galvanized steel for superior corrosion resistance** on exterior openings
- **Full height lock-side reinforcement channel** ensures structural stability and locking hardware functionality under extreme pressure conditions
- **Full height, epoxy-filled mechanical interlock edges** provide structural support and stability the full height of the door edges
- **Patented universal hinge preparations** allow for easy field conversion from standard-weight hinges to heavy-weight hinges
- **14-gauge top and bottom channels** provide stability and protection from abuse for the top and bottom edges
- **Beveled hinge and lock edges** allow for tighter tolerances, ensure easier operation, and eliminate binding and sticking
- **Recessed Designer glass trim** provides a clean, neat and flush finish with the door surface*
- **Factory-applied baked-on rust inhibiting primer** in accordance with ANSI A250.10

*Not available on Paladin

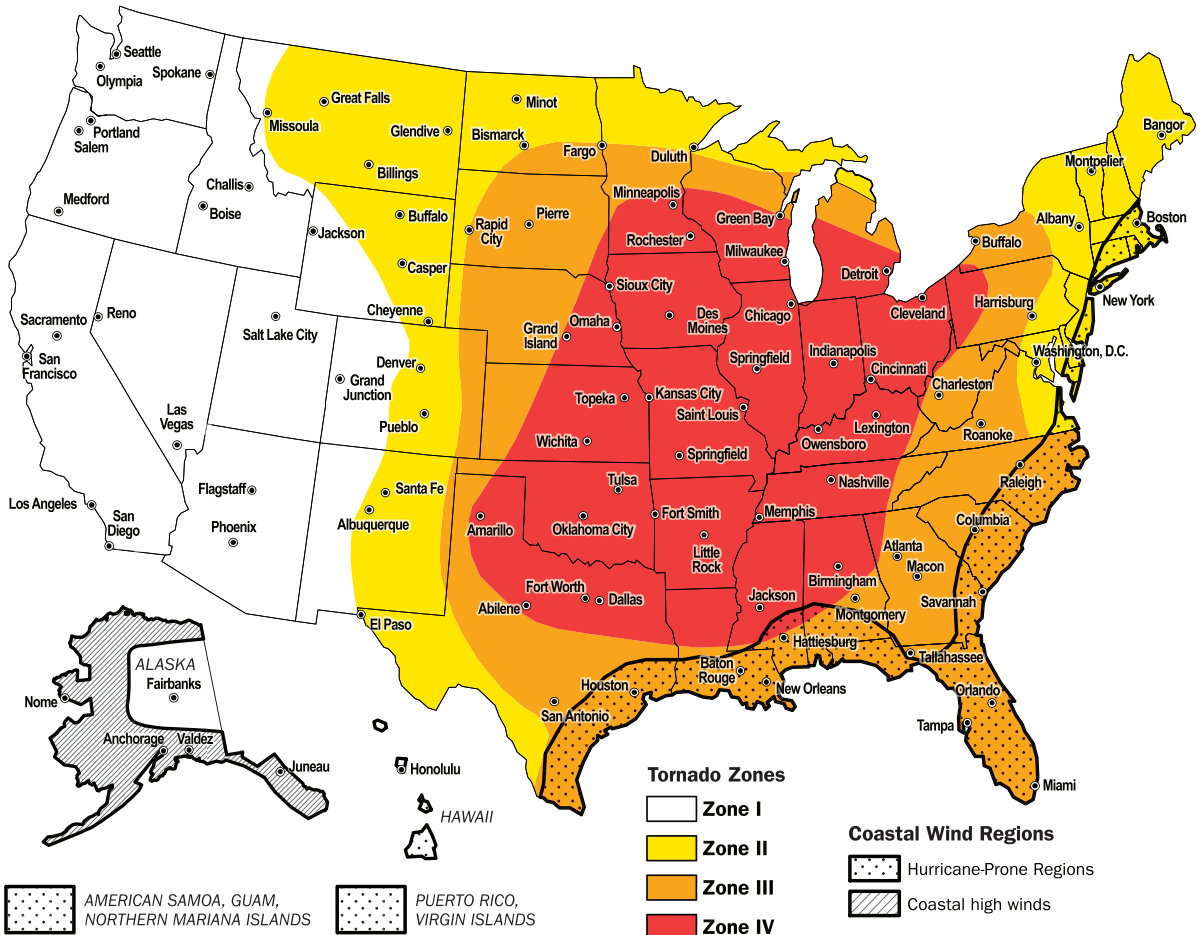


Figure 2-8: Wind hazards in the United States

Note: always reference local codes for specific jurisdiction requirements.



Acoustical doors

Reduced noise

Steelcraft sound control doors and frames are an ideal solution for applications ranging from sound studios to school band rooms, hospitals, office complexes and museums. Control the atmosphere and ensure the privacy across your facility with these quality, specialized doors.

Note: STC ratings vary by door series and core type, please see the Specialty Section of our Technical Data Manual for a complete listing.



High definition doors

Sophisticated style

From executive office settings to multi-family housing units to university conference facilities, the Steelcraft commercial embossed high definition two panel doors enhance any environment. Crafted detailing gives these doors a face of beauty and elegant style that's sure to upgrade the appearance of your setting. Available in standard paint or GRAINTECH finishes, these doors feature two inset panels with deep shadow detail and your choice of straight cut or arched top design.

Durable core

Steelcraft construction combines the strength and dimensional stability of steel with the structural integrity of our laminate core. Our process of continuous bonding seals the core to steel face sheets for a flat door finish, free of face welding marks. Lab studies prove this door outperforms all others in its class, meeting the requirements of fire-rated doors from 20 minutes to 3 hours.



HD2A



HD2

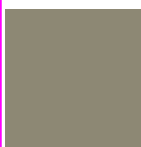
Factory finish paint

Steelcraft's factory finish paint offers a variety of popular standard color choices along with custom match options. The finish paint is applied to our quality commercial grade doors, carefully packaged and supplied to our customer, pre-finished. Our efficient method of application and pre-finished delivery saves in money and time—without compromising quality or reliability.

Our 16 standard color options:



Rookwood brown
P2807



Downing earth
P2820



Downing stone
P2821



Downing sand
P2822



Aurora brown
P2837



Weathered shingle
P2841



Chelsea gray
P2850



Black bean
P6006



Spalding gray
P6074



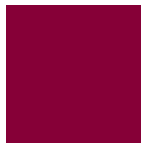
Blonde
P6128



Mannered gold
P6130



Burgundy
P6300



Luxurious red
P6314



Sierra redwood
P7598



Poolhouse
P7603



Homberg gray
P7622



Cascades
P7623



Raisin
P7630



Stainless steel doors and frames

LS Series doors and FS Series frames

Steelcraft stainless steel LS series doors and FS Series frames are designed and built to withstand the harshest environments. These solutions utilize all stainless steel construction, including reinforcement components and anchors. They are available in either 304 or 316 alloy for maximum durability and corrosion protection.

In addition to standard flush and panel doors, custom doors are available in a wide range of polished, embossed and etched finishes. The nearly unlimited choice of design options can provide you the performance and creative look to meet your special project needs.

Doors are seamless with interlocking edge; core options include polystyrene, honeycomb or polyurethane. Stainless steel stiffeners are epoxy-glued to eliminate surface imperfections associated with welding.

Available ratings:

- Three hour Class A fire-rated
- STC 51 sound rated
- Hurricane approved

INPACT™ integrated door system

INPACT Series L and T Series doors

INPACT door systems are designed to meet life safety and clear opening width requirements in cross corridor applications with factory installed Von Duprin 94/95 Series INPACT recessed exit devices.

This Allegion all-in-one door solution uses L and T Series doors ordered from Steelcraft through pre-configured hardware system sets for a reliable assembly of industry-leading Allegion hardware options to meet the aesthetic and functional requirements of the opening.

Pre-configured application system sets

All hardware shown below is ordered from Steelcraft and ships with the INPACT door from Steelcraft. If required hardware is not provided in system sets, they may be ordered from Steelcraft as L or T Series doors prep only, with hardware ordered separately from Allegion brands for field installation.



	System set available												A la carte
	D1-D4= "Double Egress"				P1-P4 = "Same Swing"				S1-S4 = "Single"				From Steelcraft
	D1 90x90	D2 90x90	D3 90x90	D4 90x180	P1 90x90	P2 90x90	P3 180x180	P4 180x180	S1 90x90	S2 90x90	S3 180x180	S4 180x180	
Steelcraft doors													
L Series	■	■	■	■	■	■	■	■	■	■	■	■	■
T Series	■	■	■	■	■	■	■	■	■	■	■	■	■
Von Duprin exit devices													
94/9547 Series CVR with LBR option	■	■	■	■	■	■	■	■	-	-	-	-	■
94/9575 Series Mortise exit	-	-	-	-	-	-	-	-	■	■	■	■	■
LCN closers													
4040XP Closer	-	-	-	■	-	-	■	■	-	-	■	■	■
4000T Wall mounted closer	■	■	■	■	■	■	-	-	■	■	-	-	■
LCN magnetic holders													
SEM 7850 Magnetic holder	■	■	■	■	■	■	■	■	■	■	■	■	■
IVES hinges and pivots													
700 Stainless pin and barrel continuous	■	-	-	■	-	-	■	-	■	-	■	-	■
711BSC Beveled swing clear continuous	-	■	-	-	■	-	-	■	-	■	-	■	■
91105F pocket pivot	-	-	■	-	-	■	-	-	-	-	-	-	■
224HD AL geared continuous	-	-	-	-	-	-	-	-	-	-	-	-	■
224XY AL geared continuous	-	-	-	-	-	-	-	-	-	-	-	-	■
041XY AL geared swing clear continuous	-	-	-	-	-	-	-	-	-	-	-	-	■
040XY AL geared wide throw continuous	-	-	-	■	-	-	-	-	-	-	-	-	■
5BB1HW 4.5" or 5" butt hinges	-	-	-	-	-	-	-	-	-	-	-	-	■
5BB1HWBSC 4.5" or 5" butt hinges	-	-	-	-	-	-	-	-	-	-	-	-	■
*D4 is shown with 2 different hinges to accommodate a wide throw condition using an available aluminum geared 040XY. Typically hinges should be the same material.													
Steelcraft frames													
FE Series (special profile for swing clear or pocket pivot)	■	■	■	■	-	-	-	-	-	-	-	-	■
F Series (double or single rabbet)	-	-	-	-	■	■	■	■	■	■	■	■	■



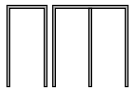


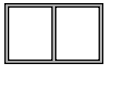
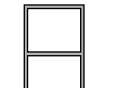

NOTES:

- 1 For system sets All hardware is installed or shipped with the door. Frame is ordered separately since frames are typically required earlier.
- 2 If ordering a la carte, changes to frames, hinges or closers may change your wall configuration, opening size and clear opening width.

Fire-rated frames

Frame type

Frame size

Three sided frames	Max. overall size	Max. door size	Max. rating	Jamb depths	Max. panel size	Max. glass area
 <p>F16, FN16 F14, FN14, F12</p>		4'0" x 10'0" single (1219mm x 3048mm) 8'0" x 10'0" pair (2438mm x 3048mm)	3 hour	Min. 3" (76mm) Max. 14" (350mm) Max. 20" (F16 and F14 masonry)		
 <p>DW16, K16 DW14, K14</p>		4'0" x 8'10" single (1219mm x 2692mm) 8'0" x 8'10" pair (2438mm x 3048mm)	1½ hour	Min. 3 ½" (121mm) Max. 14"		
 <p>F14</p>		4'0" x 8'0" single 8'0" x 8'0" pair	3 hour	Min. 5 ¾" (146mm) Max. 10 ¾" (273mm)		
Transom frames with panel, without bar						
	4'4" single (1319mm x 3505mm) 8'4" pair (2538mm x 3505mm) 11'4" OA height	4'0" x 8'0" single (1219mm x 2438mm) 8'0" x 8'0" pair (2438mm x 2438mm)	3 hour - masonry 1½ hour - stud (10'2" OA height)	Min. 3" (121mm) Max. 14" (324mm)	8'0" x 4'0" (2438mm x 1219mm)	
Transom frames with bar						
 <p>F16, F14 MU16, MU14 FN16, FN14</p>	4'4" x 12'2" single (1319mm x 3531mm) 8'4" x 12'2" pair (2538mm x 3531mm) without mullion 8'6" x 12'2" (2590mm x 3531mm) with mullion	4'0" x 10'0" single (1219mm x 3048mm) 8'0" x 10'0" pair (2438mm x 3048mm)	1½ hour	Min. 3" (121mm) Max. 14" (324mm)	8'0" x 3'2" (2438mm x 965mm)	Per glass mfgr.
Borrowed lite frames						
 <p>F16, F14 MU16, MU14 FN16, FN14</p>	13'2" x 12'2" (4013mm x 3531mm) stud wall 13'6" x 12'2" masonry		1½ hour	Min. 3" (121mm) Max. 14" (324mm)		Per glass mfgr.
Borrowed lite frames						
 <p>DW16, DW14</p>	8'4" x 7'2" single (2540mm x 2184mm) 4'4" x 9'0" (with Loriz rem mullion)		1 hour	Min. 3 ½" (121mm) Max. 14" (324mm)		Per glass mfgr.
Transom/sidelite frames						
 <p>F16, F14 MU16, MU14 FN16, FN14</p>	13'2" x 12'2" (4013mm x 3531mm) stud wall 13'6" x 12'2" masonry	4'0" x 10'0" single (1219mm x 3048mm) 8'0" x 10'0" pair (2438mm x 3048mm)	1½ hour	Min. 3" (121mm) Max. 14" (324mm)	Transom or side panel 8'0" x 3'2" 2438mm x 965mm)	Per glass mfgr.

Interior dividing members may have a minimum 1" (25mm) face. Maximum size frame available will vary with wall construction. See Steelcraft spec sheets for exact sizes. Approved glazing required in all fire-rated products.

Fire-rated doors

Maximum glass area for labeled doors

Label	A	B	C	D*	E*		
Rating	3 hour	1½ hour	¾ hour	1½ hour	¾ hour	20 minutes	
Max. glass area	100 sq. in ¹ (0.6 sq. m)	1850 sq. in ² mfrgr. (1.19 sq. m) list	2700 sq. in	none	2700 sq. in (1.74 sq. m)	as tested	

*Exterior rated openings ¹Firelite glass ²[1296 sq. in. (84 sq. M)] with Firelite glass.

Single doors label rating

Doors	Max. size	3 hour	1½ hour	¾ hour	1½ hour	¾ hour	20 minute
L20	3'0" x 7'2" (914mm x 2184mm)	A	B	C	D	E	✓
L20	3'0" x 8'0" (914mm x 2438mm)		B	C	D	E	✓
L18, L16	4'0" x 10'0" (1219mm x 3048mm)		B	C	D	E	✓
L14	4'0" x 10'0" (1219mm x 3048mm)	A	B	C	D	E	✓
B18, B16	4'0" x 10'0" (1219mm x 3048mm)	A	B	C	D	E	✓
B14	4'0" x 8'0"/10'0" (1219mm x 2438mm)	A - 8'0" 4'0" x 8'0"	B - 10'0"	C - 10'0"	D - 10'0"	E - 10'0"	✓ - 10'0"
A14	4'0" x 8'0" (1219mm x 2438mm)		B - (FG2, FG3)	C - (FG, FG2, FG3)		E - (FG2, FG3)	✓ - (FG, FG2, FG3)
T20, T18 T16, T14	4'0" x 9'0" (1219mm x 2743mm)	A - 250° temp. rise	B - 250° or 450° temp. rise				
CE20, CE16	3'0" x 8'0" (914mm x 2438mm)	A - (3'0" x 7'0" CE20)	B	C	D	E	✓
CE18	3'8" x 8'0" (1118mm x 2438mm)	A	B	C	D	E	✓
PW14	4'0" x 8'0" single 8'0" x 8'0" pair	A	B	C			✓
H16/H14	4'0" x 8'0" single 8'0" x 8'0" pair	A	B	C			✓
TH16/TH14	4'0" x 8'0" single 8'0" x 8'0" pair	A	B - (100 sq in max.)				
HD16, HD18	3'8" x 7'0" single 3'0" x 8'0" single	A	B	C	D	E	✓
HD16, HD18	7'4" x 7'0" pair 6'0" x 8'0" pair	A	B	C	D	E	✓

Pair of doors label rating

Doors	Max. size	3 hour	1½ hour	¾ hour	1½ hour	¾ hour	20 minutes
L20	6'0" x 7'2" (1892mm x 2184mm)		B	C	D	E	✓
L18, L16	8'0" x 8'0" (2438mm x 2438mm)	A	B	C	D	E	✓
L14	8'0" x 10'0" (2438mm x 3048mm)	A - 8'0"	B - 9'0"	C - 9'0"	D - 9'0"	E - 9'0"	✓ - 9'0"
B18, B16	8'0" x 10'0" (2438mm x 3048mm)	A	B	C	D	E	✓
B14	8'0" x 8'0"/10'0" (2438mm x 2438mm)	A - 8'0"	B - 10'0"	C - 10'0"	D - 10'0"	E - 10'0"	✓ - 10'0"
A14	8'0" x 8'0" (2438mm x 2438mm)		B - (FG2, FG3)	C - (FG2, FG3)		E - (FG2, FG3)	✓ - (FG, FG2, FG3)
T20, T18 T16, T14	8'0" x 9'0" (2438mm x 2438mm)	A - 250° temp. rise	B - 250° or 450° temp. rise (FG2, FG3)				
CE20	6'0" x 7'0" (1892mm x 2134mm)		B	C	D	E	✓
CE18	7'4" x 8'0" (2235mm x 2438mm)	A	B	C	D	E	✓
CE16	6'0" x 8'0" (1892mm x 2438mm)	A	B	C	D	E	✓

L, B, T, H Series label doors are available with the seams filled or welded. Doors over 8'0" (2438mm) high require two pair of heavy-weight hinges.
Note: Consult the factory or an authorized Steelcraft distributor for specific fire-rated applications.

About Allegion

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