

Markar Architectural Product Catalog



ASSA ABLOY, the global leader
in door opening solutions

Table of Contents

General Information	3-4
Warranties	5
Sales Support	5
Terms and Conditions	6
Hinge Finishes	7
Hinge Numbering System and Standard Lengths	8
Continuous Hinge Modifications	9-12
3500 Series Stainless Steel Pin and Barrel Security Hinges	A1-A4
300 Series Stainless Steel Pin and Barrel Hinges	B1-B20
300 Series Stainless Steel Edge Guards	C1-C4
200 Series Carbon Steel Pin and Barrel Hinges	D1-D4
100 Series Aluminum Pin and Barrel Continuous Hinges	E1-E6
1100 Series Aluminum Pin and Barrel Continuous Hinges	F1-F2
Toilet Partition Hinges	G1-G3
Universal Screw Packs	H1-H4
Fasteners	H5-H8
Tools and Accessories	H9
Z Astragals	J3
Edge Guards and Hardware Cutouts	J4
Flat Astragals	J5
Edge Guards and Astragals	J1-J2, J4
Edge Guards Order Form	C4, J6
Current Transfer Prep Info Form	H10

Product Index

EG108	E6	FS102	E3	HG310	B11
EG308	C1	FS201	D2	HG311	B12
EGC308	C2	FS202	D3	HG315	B13
EGT308	C3	FS301	B4	HG322	B15
FM/SC325	B17	FS302	B5	HG323	B16
FM100	E1	FS321	B14	HG326	B18
FM1100	F1	FS3501	A2	HG329	B20
FM1111	F2	FS3502	A3	HG3505	A4
FM200	D1	FS402	G2	HM304	B5
FM300	B1	FS902	G1	HS103	E4
FM300WT	B2- B3	FSTP10021	G3	HS203	D4
FM327	B19	FSTP10022	G3	HS303	B6
FM3500	A1	HG105	E5	MP-3 thru MP-606	H1-H8
FS/SC309	B10	HG305	B8		
FS101	E2	HG306	B9		



Markar Architectural Products

Markar has been a leader in innovative products for the hardware industry since 1969. In 1983, Markar was the first manufacturer to produce an architectural grade, adjustable continuous pin and barrel hinge line, and that innovation continues today with quality continuous hinges and edge guards.

Markar leads the industry in development of fire rated continuous hinges with their flagship 300 Series stainless steel, 3500 Series institutional grade, and 200 Series cold rolled steel hinges. Building on customer feedback, Markar has developed over 75 standard continuous hinge models providing products for a wide variety of applications and challenges.

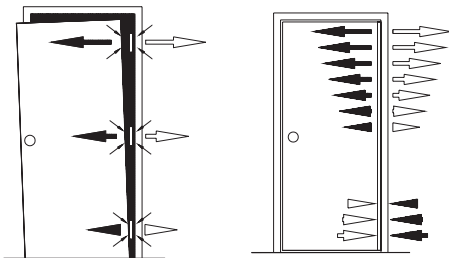
Custom Designs

Whether the need is for a custom color to match a specific pallet, hospital tips for patient rooms, hardware cutouts, wide throw models, custom hole patterns, security fasteners, current transfers, monitoring switches, or medical bearings, Markar offers hinge modifications that will enhance the fit and function of an opening (See pages 9-13). Markar hinges are available in a wide range of finishes including powder coat, anodized (for aluminum), and architectural finishes.

Medical Bearings are Standard

NEW!

Markar now provides Medical Bearings as our standard bearing for all Pin and Barrel hinges. You benefit from this new standard offering with permanently lubricated hinges with no metal to metal contact, improving the life and overall function of the hinge.



Most door and frame stress is put on the top of conventional hinge systems.

A continuous hinge spreads the stress along the full length of the door and frame.

Why Continuous Hinges?

Most commonly, hinge failure begins when doors are opened past stop device limits. The resulting kickback shock to the hinges can surpass 1000 lbs. of force. Subsequent racking eventually loosens screws, distorts hinge leaves, pulls open knuckles, damages bearings or creates other serious damage to your standard butt hinge as well as the door frame.

Continuous hinges reduce the factors leading to hinge failure by distributing shock forces evenly so wear and tear to the frame and door is reduced significantly. In addition, continuous hinges:

- Increase security and reduce vandalism by preventing insertion of devices between the door and frame
- Ease installation by providing simple alignment of electrical transfers and of monitoring switches
- Reduces air infiltration by creating a complete seal from top to bottom of the door at the hinge jamb

Markar manufactures pin and barrel hinges as well as spring loaded toilet partition pin and barrel models. There are over 75 different models to choose from offering a variety of configurations, options, and materials.

LEED Certification Contribution

Markar can help to achieve prerequisites and accumulate points in several categories and credit areas for LEED. For further information, please call 1-800-824-3018 or refer to our website to view our prepared LEED statement.



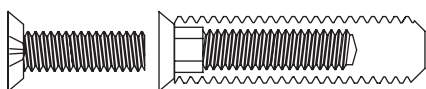
ASSA ABLOY is a member of the USGBC and CalGBC

U.S. Green Building Council logo is a trademark owned by the U.S. Green Building Council and is used with permission.

Optional Features

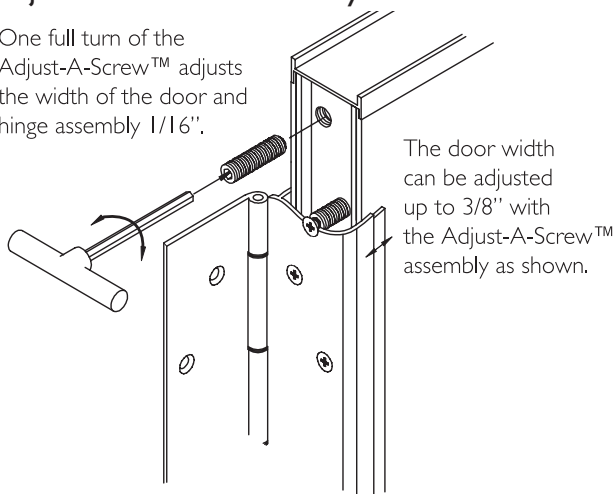
The Unique Adjust-A-Screw™ Fastener

An optional Markar fastener available on Hinge Guard models permits up to 3/8" width adjustment. Full door length adjustment means doors can be squared accurately and easily in new installations and existing frames can be used in retrofits. Maintenance staff can make future adjustments of the door by re-positioning the Adjust-A-Screw™ Fasteners.



Adjust-A-Screw™ Assembly

One full turn of the Adjust-A-Screw™ adjusts the width of the door and hinge assembly 1/16".



Windstorm Rated Hinges

Windstorm/hurricane testing on Markar continuous hinges was completed with UL, and was subsequently reviewed, passed and approved by the Florida Building Code (FBC) Commission in January of 2008. There were three categories of testing conducted on the hinges: an Impact Test (TAS 201), Static Load/Cyclical Test (TAS 202), and a Water and Leakage Test (TAS 203). Markar excelled in all three categories of testing.

Based on this performance, the FBC approved all Markar hinges in the following series:

(Up to openings of 4'0" x 8'0" singles and 8'0" x 8'0" pairs)

- 100 – Aluminum
- 200 – Cold Rolled Carbon Steel
- 300 – Stainless Steel
- 3500 – Stainless Steel (Security Grade)
- 1100 – Aluminum



Tornado



Hurricane

Fire Rated Continuous Hinges

Markar stainless steel hinges (300 Series and 3500 Series) and carbon steel hinges (200 Series) are available with two labeling options: Underwriters Laboratories Inc. or Warnock Hersey Int'l.

- 20 minute labeled wood doors
- One and a half hour labeled hollow metal and composite-core wood fire doors
- Three hour labeled hollow metal doors mounted singly.

Maximum Door Opening:

Single Doors: 4'0" x 10'0"

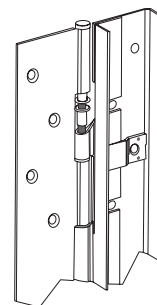
Pair of Doors: 8'0" x 10'0"

In accordance with UL10C for positive pressure.



Exclusive Fiber-Reinforced Polymer Bearings

- Uniquely designed to provide clean and quiet hinge operation
- Self Lubricating with high resistance to wear
- Exceeds ANSI/BHMA Grade 1 requirements
- Supports doors weighing up to 600 lbs
- 25 year warranty



Markar General Warranty

Limited Warranty

Markar Architectural Products guarantees its products to be free from defects in materials and workmanship for a period as stated for each product line. Our liability, expressed or implied, shall be limited to replacement of goods proven defective. No claims will be allowed for damages incurred or work done thereon.

The limited warranty specifically excludes damage arising from abuse, misuse, modification, incorrect installation or adjustment, deterioration of finish due to improper handling or improper placement or protection of product prior to or after installation in excess of normal weathering or usage, and all other circumstances beyond the control of Markar Architectural Products.

This limited warranty is in lieu of all other warranties expressed or implied, and excludes any warranty of fitness or merchantability. No agent, representative dealer or employee of Markar Architectural Products has the authority to increase or alter the terms and conditions of this limited warranty.

CONTINUOUS HINGE AND PIVOT LIMITED WARRANTY

Markar Architectural Products guarantees its products to be free from defects in materials and workmanship for a period of 10 years. Hinges with medical bearings are guaranteed for 25 years.

EDGE GUARD AND ASTRAGAL LIMITED WARRANTY

Markar Architectural Products guarantees its products to be free from defects in materials and workmanship for a period of 1 year.

Sales & Support

Markar is represented by the ASSA ABLOY Door Security Solutions team.

Phone: 1-800-DSS-EZ4U (800-377-3948)
Website: www.assaabloydss.com

Email: Contact your local ASSA ABLOY Door Security Solution Representative via e-mail by going to www.assaabloydss.com and clicking on "Sales Support".

Customer Service Representatives are available from 7am to 7pm Central time at 1-800-824-3018 or visit the website for the current catalogs, brochures, and the most up-to-date templates.

Email address: markarorders@markar.com
Website: www.markar.com

Markar has manufacturing and warehouse locations in Memphis TN and Ventura CA.



Markar Terms and Conditions

Invoices	Please call within 15 days of receipt of shipment to resolve any invoicing discrepancies.
Returns and Allowances	No merchandise will be accepted for return or credit unless prior written approval is obtained. Returned merchandise must be of recent sale (6 months), in restockable/resalable quality, size, and condition. A minimum 30% charge plus freight charges will be made for returns. Material that is not in standard stock sizes, is made to special order, has a custom finish, or has been sold at special consideration or closeout is subject to additional charges. Markar Architectural Products shall not be liable for loss or damage resulting from delay or inability to deliver goods due to circumstances beyond our control (e.g., labor actions, fire, flood, storms, etc.)
Cancellation Policy	Orders that require modifications and special materials or are non-stock items are subject to cancellation charges based on manufacturing and material expenses incurred.
Terms	All prices are F.O.B. factory. To customers with satisfactory and/or prior approved credit and account status, terms of 2% 10th prox., NET 20th, will be allowed. Please enclose an account application prior to or with your initial order.
Credit Card	Visa, Mastercard and American Express are accepted (only for established open accounts). Payment terms are NET.
Freight Terms:	All orders are F.O.B. factory. For NET orders of \$1000.00 or more, freight will be prepaid in the continental U.S. for shipment the most economical way. For shipments to Hawaii on NET orders of \$1350.00 or more, freight will be prepaid the most economical way. A freight allowance of \$13/cwt will apply on shipments to Canada, Alaska, or Puerto Rico for NET orders of \$1100.00 or more. All shipments that exceed 108" in packaged length must be shipped LTL. Add 4" to the length of the product for finish package length. Minimum freight on these orders is \$120.00.
Crating Charges/ Special Packaging	\$50.00 NET. This will be added to any order not meeting prepaid freight where the product is over 10 feet in length.
Minimum Order Level	A surcharge of \$7.50 NET will be added to NET orders less than \$50.00.
Claims for Shortage or Damage in Transit	All claims must be made within ten (10) days of receipt of goods. Consignee assumes the risk of loss or damage in transit.
Detail	No order is entered into production until all details including both standard and custom hinges have been received and approved.
Policy on Changes	After shop drawings have been approved and production begins, there will be a charge for any changes to the hinge(s) of a minimum \$60.00 up to the entire cost of the hinge(s).
Proposed Ship Date	These dates are subject to change. Failure to provide all pertinent information within 48 hours of submitting purchase order will cause a delay in processing the order.

Standard Powder Coat Finishes

Tough, Durable, Long-Lasting

Designed for general purpose interior and exterior use and applications where maximum chemical and solvent resistance is required.

Performance Properties

The data below is based on 24 gauge Bonderite 1000 panels with 1.5 mil to 2.0 mil of high gloss formulation.

Adhesion (ASTM D-3359B): There is no lifting of 1/8" squares of coating between scribed lines in crosshatch adhesion testing using pressure sensitive adhesive backed tape.

Pencil Hardness (ASTM D-3363): 2H – 4H

Flexibility (ASTM D-522 modified): The coating withstands a 180° bend over a 1/4" diameter mandrel without cracking or loss of adhesion.

Impact Resistance (ASTM D 2794 modified): The coating withstands 160 inch-pound impacts, both direct and reverse, without cracking or loss of adhesion using the standard Gardner impact tester.

Abrasion Resistance (ASTM D-4060 modified): The weight loss of coating after 1,000 cycles on a Taber abraser equipped with CS-10 wheels and operating under a 1 kilogram loading per wheel is on the order of 35 to 50 milligrams.

Salt Spray Resistance (ASTM B-117): Bonderite 1000 steel panels, in a scribed condition, exhibit no undercutting after 1,000 hours in 5% salt spray testing at 95°F and 95% relative humidity. There was no rusting or blistering on the panel face away from the scribe.

Humidity Resistance (ASTM D-2247): Bonderite 1000 steel panels in an unscribed condition exhibit no effect after 1000 hours exposure to 100% relative humidity at 100°F.

Chemical and Solvent Resistance: After 60 days immersion in the test fluid, the following data was obtained for epoxy powder coatings:

15% Hydraulic Acid	No Effect
Lacquer Thinner	No Effect
Dilute "HTH" Pool Chemical	No Effect
15% Sulfuric Acid	Pinhole Rust
15% Caustic Soda	#8 Blisters
Ammonia Hydroxide	#8 Blisters
Petrochloroethylene	No Effect
15% Acetic Acid	#4 Blisters
Gasoline	No Effect

Verification of resistance properties should be made for each chemical or solvent proposed for use with the coating.

Closest US Standard & BHMA Finishes

No minimum quantity.

PC-1	Dark Bronze	690
PC-2	Eggshell White	714
PC-3	Semi-Gloss Black	693
PC-4	Aluminum	689
PC-5	Sun Gold	706
PC-6	Light Copper	691
PC-7	Polished Brass	605

PC-7 available only on 100 & 300 series hinges

*Note: The PC-7 will have an additional charge for two-step polishing process.

Special Finishes

Polished Aluminum	US26	672
Polished Stainless	US32	629

Kynar Paint With Color Approval

*Note: Additional setup charges will apply.

Special Anodized Finishes

Gold Anodized	US3	310
Light Bronze Anodized	US9	311
Medium Bronze Anodized		312
Black Anodized	US19	315

Custom Powder Coat Finishes

All RAL Powder Coat finishes available. Sample color chip must accompany order. Priced at time of order.

U.S. Standard & B.H.M.A. Finish Codes

US3	310	gold anodized
US9	311	light bronze anodized
	312	medium bronze anodized
US20A	313	dark bronze anodized
US19	315	black anodized
USP	600	primed for paint
US2G	603	zinc plated
US28	628	clear anodized
US32	629	bright stainless steel
US32D	630	satin stainless steel
US26	672	bright polished aluminum
US28	689	aluminum paint
US20A	690	dark bronze paint
US10	691	light bronze paint
US19	693	black paint
US4	706	gold paint
	714	white paint

Hinge Numbering System

Hinge Prefixes

EG	Edge Guard
FM	Edge Mount
FS	Full Surface
HG	Hinge/Guard
HM	Half Mortise
HS	Half Surface
SC	Swing Clear

Hinge Series

This series number indicates the type of hinge and base material used:

100	Aluminum barrel hinges with stainless pin
200	Carbon steel barrel hinges with stainless pin
300	Stainless steel barrel hinges with stainless pin
400	Spring loaded aluminum toilet partition hinges
500	Stainless steel toilet partition hinges
800	Aluminum toilet partition hinges
900	Spring loaded stainless steel toilet partition hinges
1100	Aluminum barrel hinges with stainless steel pin
1900	Reinforcing pivots
3500	12 Gauge stainless steel pin and barrel security hinges

Hinge Models

The last two digits of the model number indicate the application:

00	Edge mount (formerly full mortise)
01	Full surface, $\frac{1}{8}$ " offset
02	Full surface, flush
03	Half surface, $\frac{1}{8}$ " offset
04	Half mortise, $\frac{1}{8}$ " offset
05	Edge mount hinge/guard
06	Half mortise hinge/guard
07	Double hinge/guard
08	Edge guard
09	Full surface, swing clear
10	Swing clear hinge/guard
11	Edge mount, self aligning
15	Edge mount, self aligning flush edge guard
21	Full surface inset, $\frac{3}{4}$ " offset
22	Edge mount hinge/guard, deep
23	Edge mount hinge/guard, deep, thru bolt
25	Edge mount swing clear
26	Edge mount hinge/guard, swing clear
27	Edge mount, safety hinge
29	Edge mount, self aligning

Other numbers are used for specific applications

Optional Suffixes

AMS	Adjustable Monitoring Switch
CTP	Current Transfer Preparation
DDP	Dutch Door Prep
EL	ElectroLynx™ Wires (Specify 4, 8, or 12)
ETAP	Electrical Transfer Access Prep
EPT	Electric Power Transfer
HT	Hospital Tip
LL	Lead Lined
PC	Powder Coated
RB	Raised Barrel
WT	Wide Throw

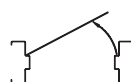
Hinge Standard Lengths

Standard Hinge Length Conversion Chart

A 6'8"	door opening	=	an actual length of	79.25"
A 7'0"	door opening	=	an actual length of	83.125"
A 7'2"	door opening	=	an actual length of	85.00"
A 8'0"	door opening	=	an actual length of	95.00"
A 10'0"	door opening	=	an actual length of	118.75"

Custom hinge length will be evaluated at the time of request to ensure proper pin to knuckle alignment. Some custom length requests may be adjusted to ensure a proper hinge assembly.

Specify handing on all custom hinge lengths.



LEFT HAND



RIGHT HAND



LEFT HAND
REVERSE



RIGHT HAND
REVERSE

Continuous Hinge Modifications

Special Length

Please specify handing on all custom hinge lengths

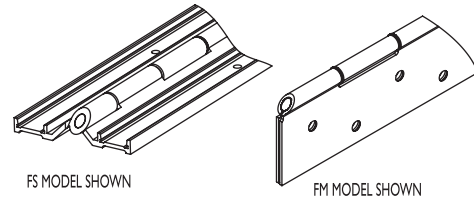
Some custom lengths may require two cuts due to location of screw holes

Hospital Tip

Available on all models except spring-loaded toilet partition hinges, FS321 and FM327

Suffix hinge “-HT”

Helps provide a safe, clean environment



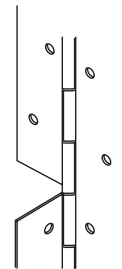
Dutch Door Prep

Available on all hinge models

Suffix hinge “-DDP”

Continuous frame leaf with two-piece door leaf

Indicate handing, clearances, door and frame heights, and materials when ordering



Wide Throw

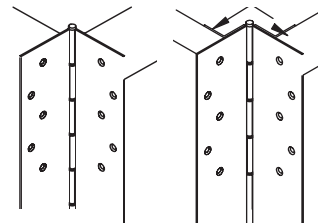
Only available on 300 series hinges

Suffix hinge “-WT”

Specify distance from pin centerline to heel edge of hinge when ordering

Reinforcement may be required on extreme wide throw applications

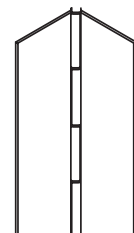
These conditions will be determined through a drawing approval process



Blank

Holes omitted for special applications, such as welded installation

Not available on adjustable models



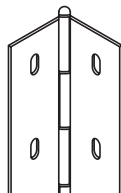
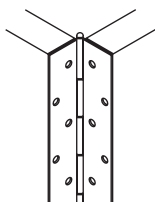
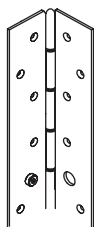
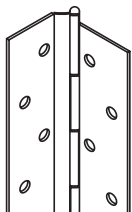
Welded End Pins

End pins are tack-welded and are non-removeable

Not available on aluminum or powder coated hinges

Plug Weld

Plug welding hole prep



Continuous Hinge Modifications (Cont.)

Automatic Door Bottom Cut

Standard is "U" shape cut

For custom cuts, specify net door height and specific drop seal

Some custom lengths may require two cuts due to location of screw holes

Raised Barrel (Swaged)

Available on all edge mount and half surface models except on aluminum hinges

Required on models FS201, FS202, FS301 & FS302 in order to open 180°

Suffix hinge "-RB"

For cased open or center pivot doors

Standard Edge Guard Cut-Outs

4 $\frac{7}{8}$ " ASA strike

161 latch

86 mortise

Manual flush bolt

Automatic flush bolt 161 strike

Security Studs

Stainless steel security studs mounted to the frame leaf

Door leaf is drilled to accommodate studs

Three studs installed on hinges up to 7'2"

Four studs installed on hinges over 7'2"

Door and frame must be specially prepared to accommodate security studs

Sheared Leaf

Used for narrow door thicknesses, unevenly rabbeted frames, or other special applications

Specify distance from pin centerline to heel edge of hinge when ordering

Custom Hole Pattern

Any hole shape or pattern other than Markar's standard templated hole pattern

Indicate desired pattern and include dimensioned diagrams when ordering

Custom Design

Markar's Engineering Department will assist you in developing custom applications to solve any of your unique door hinging problems.

Continuous Hinge Modifications (Cont.)

Lead Lined Cover

Only available on surface mounted hinges.

Suffix hinge “-LL”

Used for x-ray room doors and other locations where radiation leakage could be a problem

Lead lined astragal for EGT

EL ElectroLynx™ Current Transfer

EL4 For 300, 3500, 200, and 100 series edge mount only. 2 wires at 22 gauge and 2 wires at 26 gauge - with ElectroLynx™ connectors (4 wire).

EL8 For 300, 3500, 200, and 100 series edge mount only. 2 wires at 22 gauge and 6 wires at 26 gauge - with ElectroLynx™ connectors (8 wire).

EL12 For 300, 3500, 200, and 100 series edge mount only. 2 wires at 22 gauge and 10 wires at 26 gauge - with ElectroLynx™ connectors (12 wire).

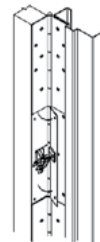
Note: Not available on raised barrel applications.

Hardwiring Made Easy™



ETAP Electrical Transfer Access Prep

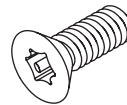
Cutout prep for the AMS, CTP, and EL modifications. This allows for easy, one-person access to wiring between the hinge and door



Security Fasteners

Specify Torx or Torx-Pin security fasteners in lieu of standard fasteners

Contact factory for compatible models



Medical Bearings

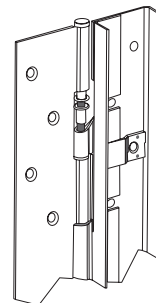
Self lubricating with high resistance to wear

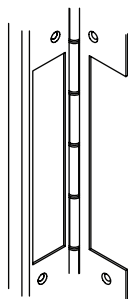
Uniquely designed to provide clean and quiet hinge operation

Exceeds ANSI/BHMA Grade 1 requirements

Supports doors weighing up to 600 lbs.

25 year warranty





Continuous Hinge Modifications (Cont.)

CTP Current Transfer Prep

Centerline of hinge is standard location

Hinge leaf cutout to accommodate Markar's EPT Electric Power Transfer or Von Duprin Power Transfer

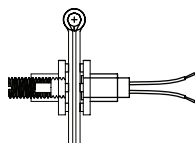
Please provide location and handing for all locations, see CTP Form on Page H10

EPT Electric Power Transfer Units

EL-EPT	Stamped steel
EL-EPTL	Stamped steel, long
EL-EPT-SC	Stamped steel, for swing clear models
EL-CEPTx32D	Cast stainless steel, satin
EL-CEPTx10B	Cast stainless steel, oil rubbed bronze

12-Wire with ElectroLynx™ connectors

CTP prep charge is additional



AMS Adjustable Monitoring Switch

Rigid welded assembly gives you the ability to adjust your monitoring switch to work with all applications 200, 300 and 3500 Series

Rating: 30v AC/DC .25 amps MAX

3500 Series Pin & Barrel Type Continuous Stainless Steel Hinges

Short Form Architectural Specification:

Continuous hinges shall be full height piano-type hinge providing full height door support.

- Supports weights up to 900 lbs. 4'0" maximum door width
- Material to be 12 gauge (.105) stainless steel
- .187" diameter stainless steel pin (rod)
- Each knuckle 2", including nylon bearing at each separation for a quiet, smooth, self-lubricating operation
- Finish: US32D Satin Stainless Steel (630)
Optional Finish: US32 Bright Stainless Steel (629),
Scratch-Resistant Powder Coated Paint.
- All hinges shall be furnished with manufacturer's recommended hardware pack per specific model application
- Must be able to carry UL label for fire rated doors and frames up to 3 hours
- Hinges shall meet ANSI/BHMA Standard A 156.26 Grade 1
- Symmetrically templated hole pattern

Note: 10-Year Warranty on all Continuous Pin & Barrel Hinges
25-Year Warranty with Medical Bearings

Note: Fire label for doors and frames should be placed on the header and top rail of fire rated doors and frames

FM3500 Edge Mount Security Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings

Material

Heavy-duty 12 gauge (.105")
stainless steel

Finishes

US32D Satin Stainless Steel (630)

Hospital Tip Standard

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door is
closed 12-24 S.S. Phillips F.H.M.S.

Capacity

Supports weights up to 900lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Specify handing

Fire Rating

3 hours- hollow metal doors
mounted singly
90 minutes- hollow metal and
composite
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finish

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated Paint

Hole Patterns

Plug weld hole pattern
Custom hole pattern

Fasteners

12-24 S.S. Torx with security pin

Other Features

Custom lengths - specify in inches
Dutch door hinges - suffix "DDP"
Raised barrel - suffix "RB"
Special sheared leaf
Security studs

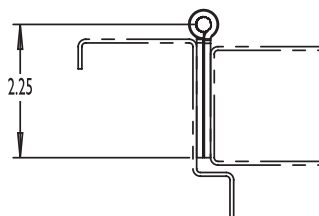
Electrical Modifications

Monitoring switch - suffix "AMS"
Current Transfer Prep - suffix "CTP"
Electrical Transfer Access Prep - "ETAP"

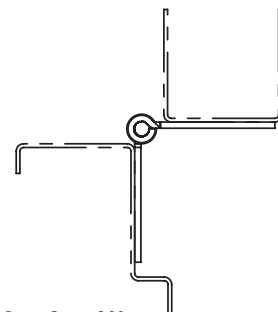
ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

This edge mount pin and barrel type hinge is fabricated with extra-heavy duty components for use on high traffic, high abuse doors. The hinge is specially designed and well suited for correctional facilities and other high security locations using up to 2 1/4" thick swing-type doors. Prison doors, gates, extremely tall doors and extra heavy doors are all good candidates for Markar's 3500 Security Hinge.



Door Closed



Door Open 90°

FS3501 Full Surface Security Hinge - 1/8" Inset

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings

Material

Heavy-duty 12 gauge (.105")
 stainless steel

Finishes

US32D Satin Stainless Steel (630)

Hospital Tip Standard

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

12-24 S.S. Phillips F.H.M.S.

Capacity

Supports weights up to 900lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Specify handing

Fire Rating

3 hours- hollow metal doors mounted singly
 90 minutes- hollow metal and composite
 20 minutes- wood doors



Classified in accordance with
 UL10C for positive pressure
 Fire-rated label



Optional Features

Finish

US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

Hole Patterns

Plug weld hole pattern
 Custom hole pattern

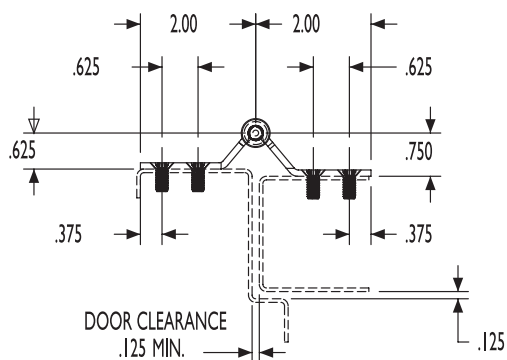
Fasteners

12-24 S.S. Torx with security pin

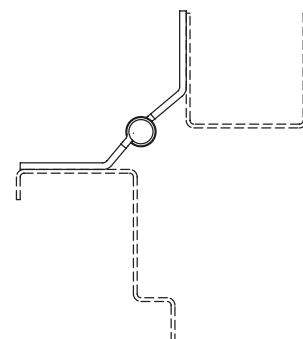
Other Features

Custom lengths – specify in inches
 Dutch door hinges – suffix "DDP"
 Special sheared leaf

For 1/8" inset doors. This hinge allows for perfect alignment for the retrofitting of doors in correctional facilities and other high security locations using 2" thick swing-type doors. Prison doors, gates, extremely tall doors and extra heavy doors are all good candidates for Markar's 3501 Security Hinge.



Door Closed



Door Open 90°

FS3502 Full Surface Security Hinge - Flush Mount

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings

Material

Heavy-duty 12 gauge (.105")
stainless steel

Finishes

US32D Satin Stainless Steel (630)

Hospital Tip Standard

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

12-24 S.S. Phillips F.H.M.S.

Capacity

Supports weights up to 900lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Specify handing

Fire Rating

3 hours- hollow metal doors
mounted singly
90 minutes- hollow metal and
composite
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finish

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated Paint

Hole Patterns

Plug weld hole pattern
Custom hole pattern

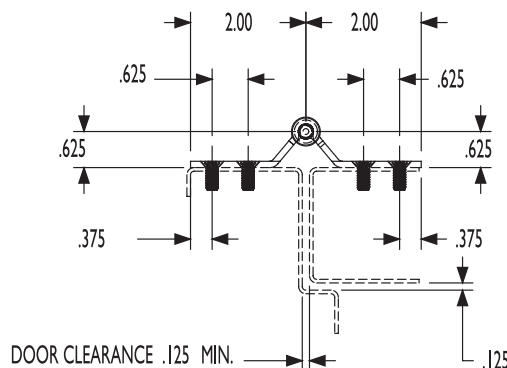
Fasteners

12-24 S.S. Torx with security pin

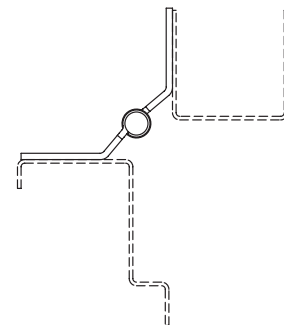
Other Features

Custom lengths - specify in inches
Dutch door hinges - suffix "DDP"
Special sheared leaf

This surface-mounted pin and barrel type hinge is fabricated with extra-heavy duty components and designed for solving door sag problems on high traffic, high abuse doors. This hinge is well suited for correctional facilities and other high security locations using 2" thick swing-type doors. Prison doors, gates extremely tall doors and extra heavy doors are all good candidates for Markar's 3502 Security Hinge.



Door Closed



Door Open 90°

HG3505 Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings

Material

Heavy-duty 12 gauge (.105") hinge leafs
 14 gauge angle on door leaf stainless steel

Finishes

US32D Satin Stainless Steel (630)

Hospital Tip Standard

Standards

ANSI/BHMA Standard A156.26 Grade 1

Mounting Hardware

12-24 S.S. Phillips F.H.M.S.

Capacity

Supports weights up to 900lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Specify handing

Fire Rating

3 hours- hollow metal doors mounted singly
 90 minutes- hollow metal and composite
 20 minutes- wood doors



Classified in accordance with
 UL10C for positive pressure
 Fire-rated label



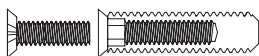
Optional Features

Finish

US32 Bright Stainless Steel
 (629) Scratch-Resistant Powder Coated Paint

Mounting Hardware

12-24 S.S. Torx with security pin
 Adjust-A-Screw™ for correcting alignment
 problems up to 3/8"



Other Features

Custom lengths – specify in inches
 Custom hole pattern
 Dutch door hinges – suffix "DDP"
 Raised barrel - suffix "RB"
 Special sheared leaf

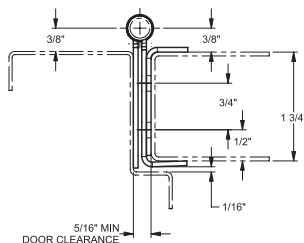
Electrical Modifications

Monitoring switch - suffix "AMS"
 Current transfer Prep - suffix "CTP"
 Electronic Transfer Access Prep - suffix "ETAP"

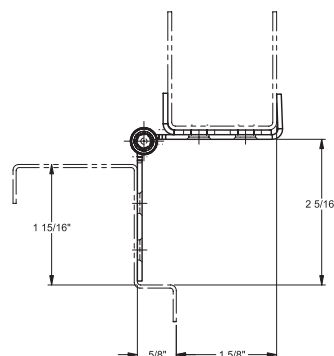
ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

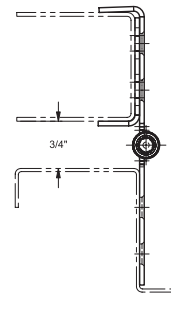
The integral hinge guard protects the door from dings and gouges from carts and gurneys while providing clean lines and aesthetic appearance. Our HG products also have fire ratings up to and including 3 hours.



Door Closed



Door Open 90°



Door Open 180°

300 Series Pin & Barrel Type Continuous Stainless Steel Hinges

Short Form Architectural Specification:

Continuous hinges shall be full height piano-type hinge providing full height door support.

- Supports weights up to 600 lbs. 4' 0" maximum door width
- Material to be 14 gauge stainless steel
- .187" diameter stainless steel pin (rod)
- Exterior barrel diameter .438" (7/16")
- Each knuckle 2", including nylon bearing at each separation for a quiet, smooth, self-lubricating operation
- Finish: US32D Satin Stainless Steel (630)
Optional Finish: US32 Bright Stainless Steel (629), Scratch-Resistant Powder Coated Paint.
- All hinges shall be furnished with manufacturer's recommended hardware pack per specific model application
- Must be able to carry Warnock Hersey Int. or UL for fire rated doors and frames up to 3 hours
- Hinges shall meet ANSI/BHMA Standard A 156.26 Grade 1
- Symmetrically templated hole pattern

Note: 10-Year Warranty on all Continuous Pin & Barrel Hinges
25-Year with Medical Bearings

Note: Fire label for doors and frames should be placed on the header and top rail of fire rated doors and frames

FM300 Edge Mount Security Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Handing required for 6'8" and 7'2" and for most optional features listed

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and composite core wood fire doors
20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

Scratch-Resistant Powder Coated Paint

Fasteners

Tamper-proof security screws

Other Features

Custom lengths- specify in inches
Custom hole pattern
Dutch door hinges- suffix "DDP"
Hospital tips - suffix "HT"
Raised barrel - suffix "RB"
Special sheared leaf

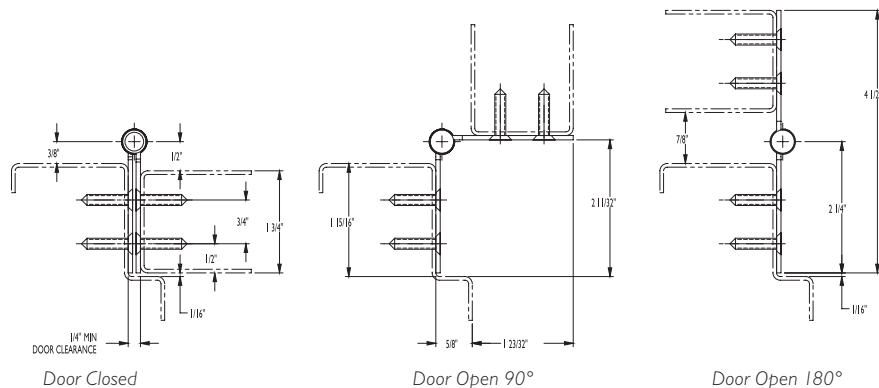
Electrical Modifications

Current Transfer Prep - suffix "CTP"
Adjustable monitoring switch - suffix "AMS"
Electrical Transfer Access Prep - suffix "ETAP"

ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

This edge-mounted pin & barrel hinge is used on many of today's high traffic, high abuse doors. The hinge works well in locations that would normally call out for anchor hinges, pivot reinforcement hinges or thrust pivot unit and hinge sets. This hinge saves on special door and frame preparation charges and makes the installer's job easier. It can be used on both fire labeled and non-labeled openings.



FM300WT Wide Throw Edge Mount Hinges

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

Fasteners concealed when door is closed

Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Handing required for 6'8" and 7'2" and for most optional features listed

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and composite core wood fire doors
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

Scratch-Resistant Powder Coated Paint

Fasteners

Tamper-proof security screws

Other Features

Custom lengths- specify in inches

Custom hole pattern

Dutch door hinges- suffix "DDP"

Hospital tips - suffix "HT"

Special sheared leaf

Electrical Modifications

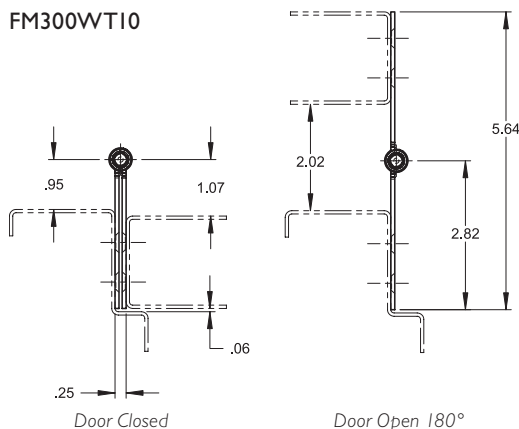
Current Transfer Prep - suffix "CTP"

Adjustable monitoring switch - suffix "AMS"

Electrical Transfer Access Prep - suffix "ETAP"

This edge-mounted pin & barrel hinge is used on many of today's high traffic, high abuse doors. The hinge works well in locations that would normally call out for anchor hinges, pivot reinforcement hinges or thrust pivot unit and hinge sets. This hinge saves on special door and frame preparation charges and makes the installer's job easier. It can be used on both fire labeled and non-labeled openings.

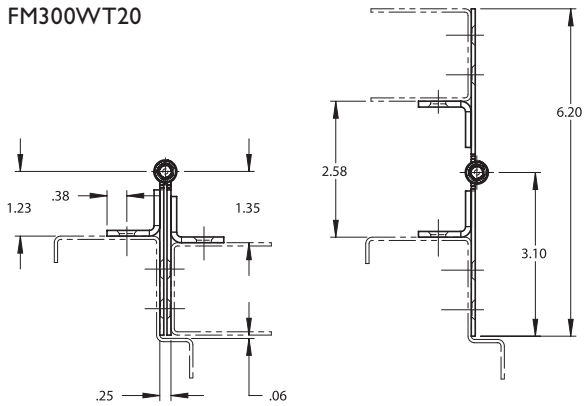
FM300WT10



More profiles on next page

FM300WT Wide Throw Edge Mount Hinges (cont)

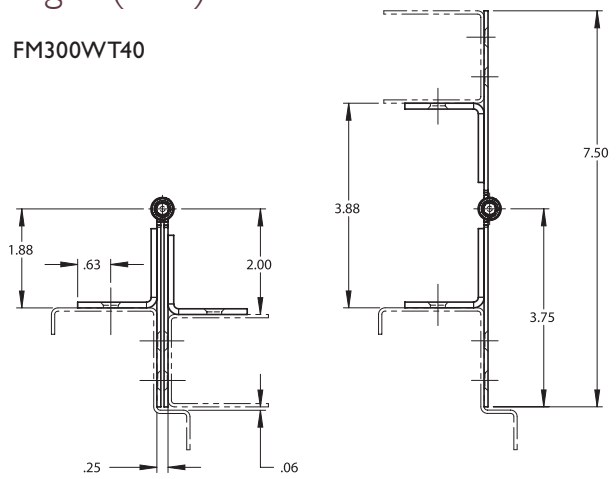
FM300WT20



Door Closed

Door Open 180°

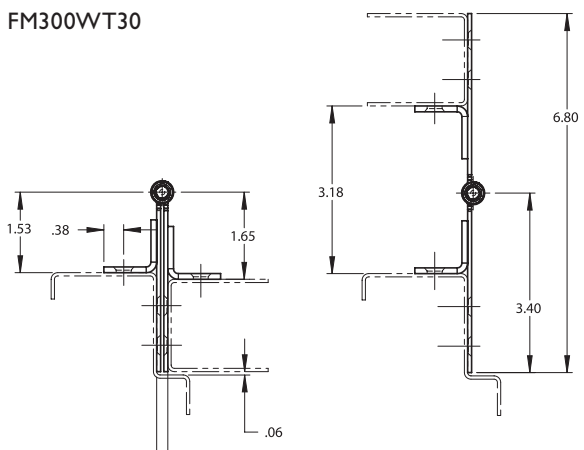
FM300WT40



Door Closed

Door Open 180°

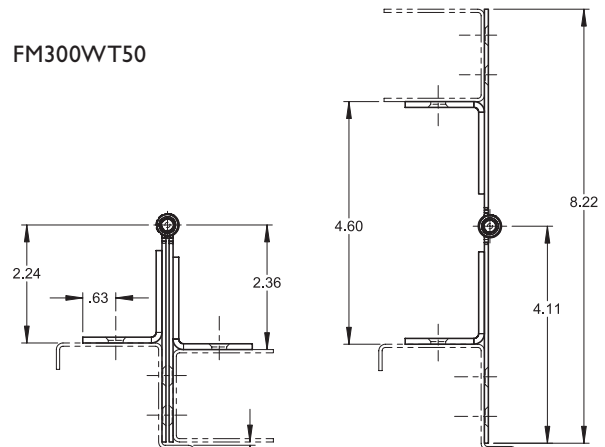
FM300WT30



Door Closed

Door Open 180°

FM300WT50



Door Closed

Door Open 180°

FS301 Full Surface 1/8" Inset

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel
 Cover - extruded aluminum

Finishes

US32D Satin Stainless Steel (630)
 Cover - Brushed Aluminum

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

Fasteners concealed underneath
 aluminum cover
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Handing

Not required for standard 7'0",
 8'0" or 10'0". Handing required for
 6'8" and 7'2" and for most optional
 features listed

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and
 composite core wood fire doors
 20 minutes- wood doors



Classified in accordance
 with UL10C for positive
 pressure



Fire-rated label

Optional Features

Finishes

Scratch-Resistant Powder Coated Paint
 US32 Bright Stainless Steel (629)

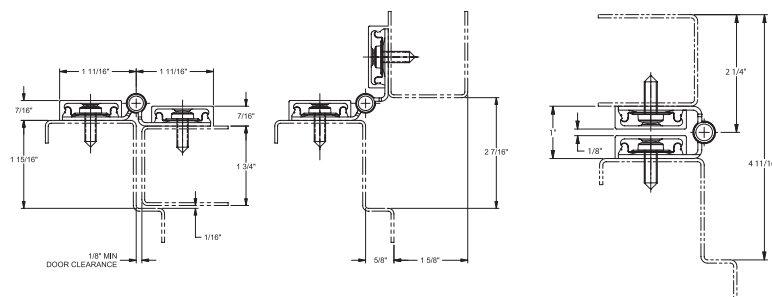
Other Features

Custom lengths- specify in inches
 Custom hole pattern
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"
 Lead lined covers with 1/16" lead lining -
 suffix "LL"

Fasteners

1 5/8" steel sleeve bolts
 Tamper-proof security screws

This surface-mounted pin & barrel continuous hinge can be used to repair or replace existing hinges on both fire labeled and non-labeled doors that have very tight clearances. The hinge has a built-in 1/8" offset to assist in weather seal and sound barrier areas.



Door Closed

Door Open 90°

Door Open 180°

FS302 Full Surface Flush Mount

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel
Cover - extruded aluminum

Finishes

US32D Satin Stainless Steel (630)
Cover - Brushed Aluminum

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed underneath
aluminum cover
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0"
or 10'0". Specify handing for 6'8" and
7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and
composite core wood fire doors
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finishes

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated
Paint

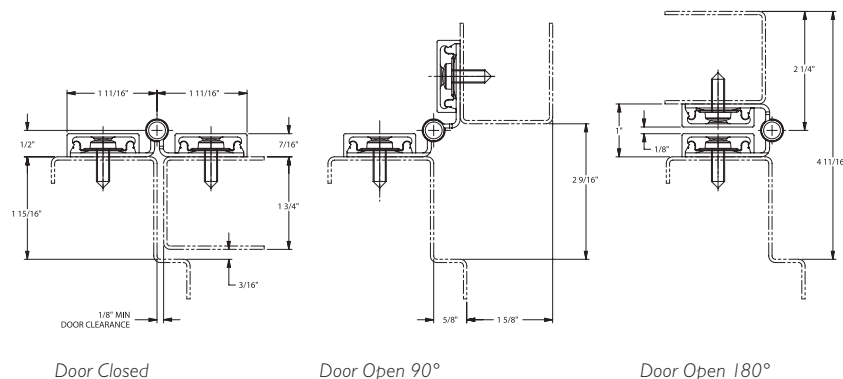
Other Features

Custom lengths- specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"
Lead lined covers with 1/16" lead lining
- suffix "LL"

Fasteners

1 5/8" steel sleeve bolts
Tamper-proof security screws

This surface-mounted pin & barrel continuous hinge can be used to replace and repair existing hinges on both fire labeled and non-labeled doors. Designed for retrofit market.



HS303 Half Surface Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearing
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)
 Cover - Brushed Aluminum

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

Fasteners concealed when door is closed
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated
 Non-handed

Handing

Not required for standard 7'0", 8'0" or 10'0". Handing required for 6'8" and 7'0" and for most optional features listed

Fire Rating

3 hours- hollow metal doors mounted singly
 90 minutes- hollow metal and composite
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finish

US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths - specify in inches
 Custom hole pattern
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"
 Raised barrel - suffix "RB"

Special sheared leaf

Lead lined cover with $\frac{1}{16}$ " lead lining- suffix "LL"

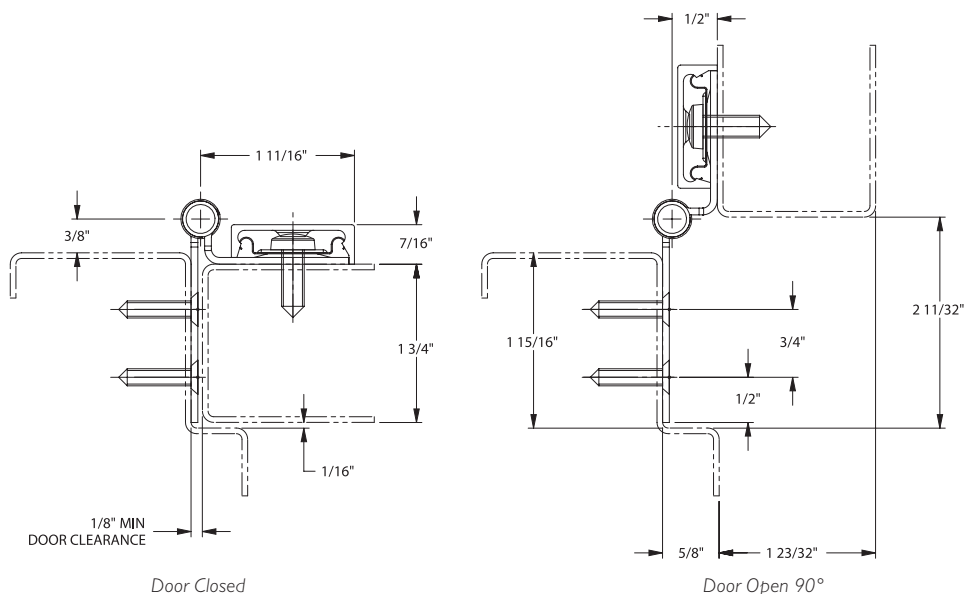
Fasteners

$1\frac{3}{8}$ " steel sleeve bolts
 Tamper-proof security screws

Electrical Modifications

Current Transfer Prep (frame leaf only) - suffix "CTP"

This half-surface pin & barrel continuous hinge can be used to repair or replace existing hinges on both fire labeled openings. The hinge fits into the gap left after standard butt hinges are removed. It can assist in reversing the handing of a door, or to reverse the swing of a door hung in an evenly-rabbetted frame. (Please consult factory for instructions for unevenly-rabbetted frames.)



HM304 Half Mortise Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel
Cover - extruded aluminum

Finishes

US32D Satin Stainless Steel (630)
Cover - Brushed Aluminum

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door
is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0",
8'0" or 10'0". Handing required for
6'8" and 7'2" and for most optional
features listed

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and
composite
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finishes

Scratch-Resistant Powder Coated
Paint

Other Features

Custom lengths- specify in inches
Custom hole pattern
Dutch door hinges- suffix "DDP"

Hospital tips - suffix "HT"
Raised barrel - suffix "RB"
Special sheared leaf

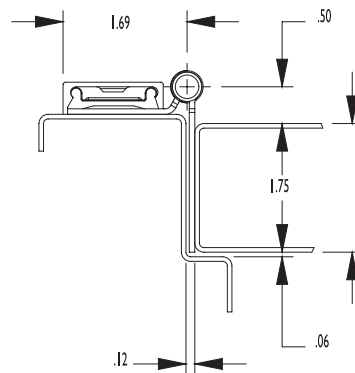
Fasteners

Tamper-proof security screws

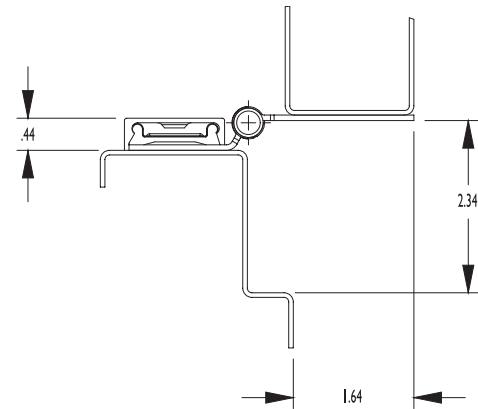
Electrical Modifications

Current Transfer Prep (door leaf
only) - suffix "CTP"

This pin & barrel type hinge
is used on wooden doors
to hid splits, chips and dents
from traffic abuse. The surface
mounted frame leaf allows for
easy retrofit installation.



Door Closed



Door Open 90°

HG305 Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

Grade 1

ANSI/BHMA Standard A156.26

Mounting Hardware

Fasteners concealed when door is closed

Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Handing required for 6'8" and 7'2" and for most optional features listed

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and composite
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finish

US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
 Custom hole pattern
 Dutch door hinges- suffix "DDP"
 Hospital tips – suffix "HT"
 Raised barrel – suffix "RB"
 Special sheared leaf

Electrical Modifications

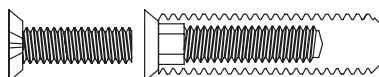
Adjustable monitoring switch - suffix "AMS"
 Current Transfer Prep - suffix "CTP"
 Electrical Transfer Access Prep - suffix "ETAP"

Fasteners

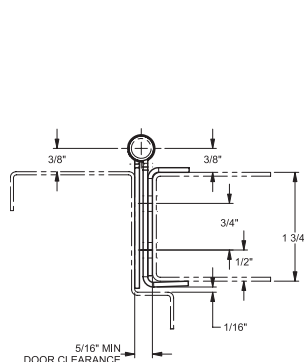
Adjust-A-Screw™ for correcting frame fit problems up to 3/8"

ElectroLynx™

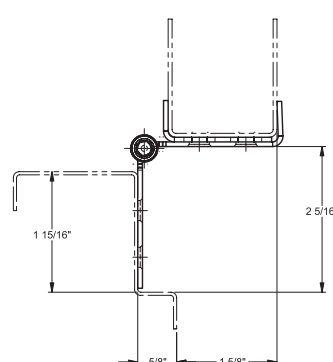
EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)



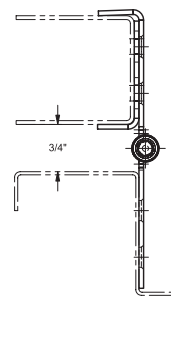
The integral hinge guard protects the door from dings and gouges from carts and gurneys while providing clean lines and aesthetic appearance. Our HG products also have fire ratings up to and including 3 hours. Not only that, but the wrap-around edge guard protects the door from unsightly dents and gouges and will deflect objects, preventing further damage.



Door Closed



Door Open 90°



Door Open 180°

HG306 Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel
Cover - extruded aluminum

Finishes

US32D Satin Stainless Steel (630)
Cover - Brushed Aluminum

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door
is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Door Edge

Specify square or beveled edge when
ordering

Handing

Not required for standard 7'0",
8'0" or 10'0". Handing required for
6'8" and 7'2" and for most optional
features listed

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and
composite
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finishes

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated
Paint

Other Features

Custom lengths- specify in inches
Custom hole pattern

Dutch door hinges- suffix "DDP"

Hospital tips – suffix "HT"

Raised barrel - suffix "RB"

Special sheared leaf

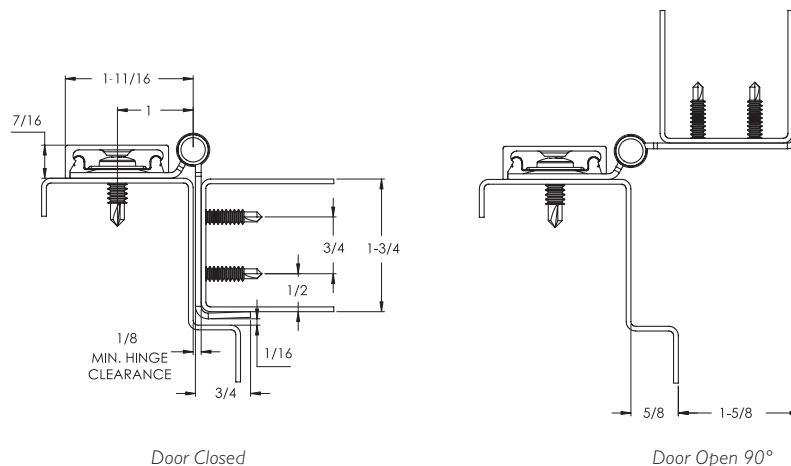
Fasteners

Tamper-proof security screws

Electrical Modifications

Current Transfer Prep (door leaf
only) - suffix "CTP"

This hinge is used with hollow metal frames and wood or hollow metal doors. The guard that wraps the door covers up dents, scratches, and splits in the door the door. This product covers the door's edge and wraps the door face to prevent further damage. This hinge can also be used to reverse the swing of a door.



FS/SC309 Full Surface Swing Clear Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel
 Cover - extruded aluminum

Finishes

US32D Satin Stainless Steel (630)
 Cover - Brushed Aluminum

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

Fasteners concealed when door is closed
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and composite
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

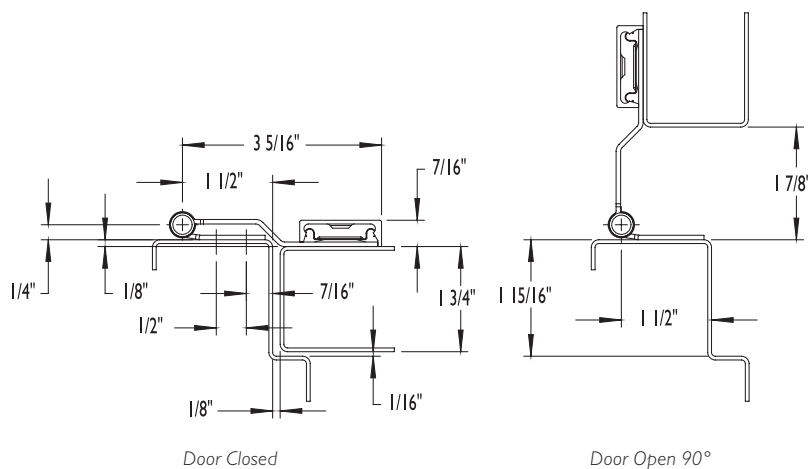
Finish

US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
 Custom hole pattern
 1 $\frac{3}{4}$ " aluminum sleeve bolts
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"
 Lead lined cover with $\frac{1}{16}$ " lead lining - suffix "LL"

This hinge is used to ensure that a door opened to a 90-degree angle is removed from the opening. This hinge will mount on a 1 $\frac{3}{4}$ " face, and is especially useful for ADA upgrade work.



HG310 Swing Clear Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0"
or 10'0". Specify handing for 6'8" and
7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
mounted singly
90 minutes- hollow metal and
composite core wood fire doors
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finishes

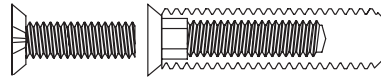
US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"
Raised barrel - suffix "RB"
Special sheared leaf

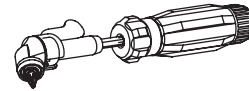
Fasteners

Tamper-proof security screws
Adjust-A-Screws™ for correcting
frame fit problems up to $\frac{3}{8}$ "



Tools

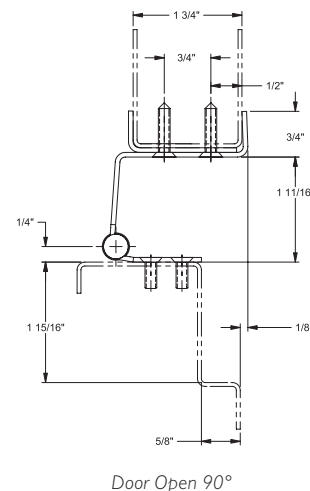
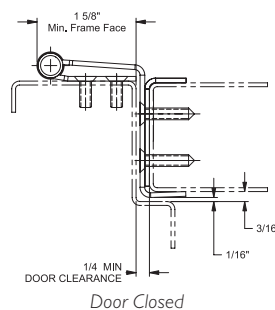
MTSP-100 Right angle skewdriver for
ease of installation



Electrical Modifications

Current Transfer Prep (door leaf
only) - suffix "CTP"

The ADA-compliant hinge is used on operating room doors to swing the door out of the opening when moving equipment in and out. The hinge guard also protects the door in the open position.



HG311 Swing Clear Hinge Guard

Standard Features

Barrel Type Hinge

- .187" diameter stainless steel pin (rod)
- Flanged nylon bearings
- Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and composite core wood fire doors
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finishes

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated Paint

Other Features

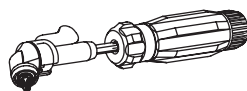
- Custom lengths- specify in inches
- Custom hole pattern
- Dutch door hinges - suffix "DDP"
- Hospital tips - suffix "HT"
- Raised barrel - suffix "RB"
- Special sheared leaf

Fasteners

Tamper-proof security screws

Tools

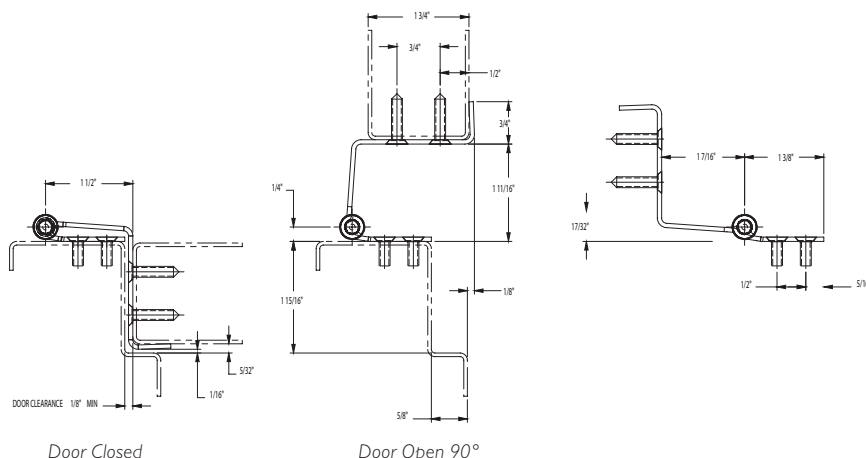
MTSP-100 Right angle skewdriver for ease of installation



Electrical Modifications

Current Transfer Prep (door leaf only) - suffix "CTP"

This surface applied swing clear version allows doors to meet ADA requirements. The single wrap protects door edges from cart damage.



HG315 Edge Mount Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and composite core wood fire doors
20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
Custom hole pattern
Dutch door hinges- suffix "DDP"
Hospital tips – suffix "HT"
Raised barrel - suffix "RB"
Special sheared leaf

Fasteners

Tamper-proof security screws

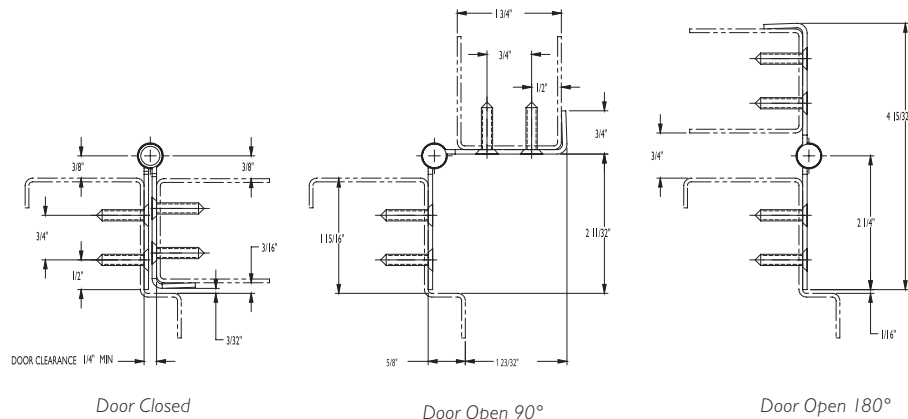
Electrical Modifications

Current Transfer Prep - suffix "CTP"
Adjustable Monitoring Switch - suffix "AMS"
Electrical Transfer Access Prep - suffix "ETAP"

ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

Featuring our unique edge guard, this economical hinge prevents objects from being placed between the door and frame as well as protects the door's edge while supporting the door's weight along the entire length of the jamb.



FS321 Full Surface 3/4" Offset Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

No exposed mounting fasteners
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Decorative Fastener Covers

Brushed aluminum

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and composite core wood fire doors
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

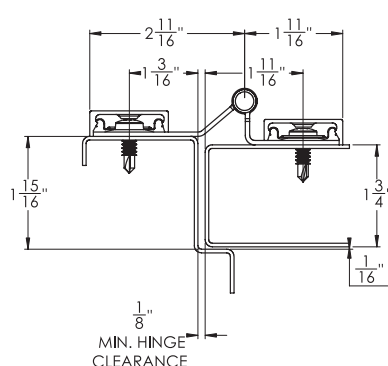
Other Features

Custom lengths- specify in inches
 Custom hole pattern
 Dutch door hinges- suffix "DDP"
 Hospital tips - suffix "HT"
 Lead lined covers with 1/16" lead lining - suffix "LL"

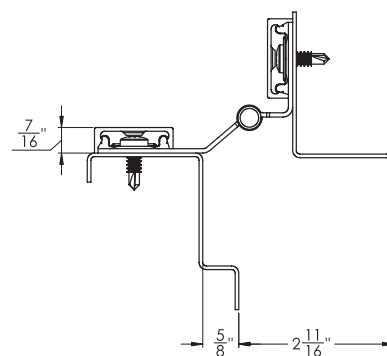
Fasteners

Tamper-proof security screws

This surface mount pin & barrel model was developed to work in conjunction with existing 3/4" offset floor closers. Where top or intermediate pivots have worn and the floor closer will remain, the FS321 is the solution to extending the life of the opening.



Door Closed



Door Open 90°

HG322 Edge Mount Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0"
or 10'0". Specify handing for 6'8" and
7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and
composite core wood fire doors
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finishes

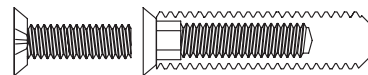
US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated
Paint

Other Features

Custom lengths- specify in inches
Custom hole pattern
Dutch door hinges- suffix "DDP"
Hospital tips – suffix "HT"
Raised barrel - suffix "RB"
Special sheared leaf

Fasteners

Tamper-proof security screws
Adjust-A-Screw™ for correcting
frame fit problems up to 3/8"



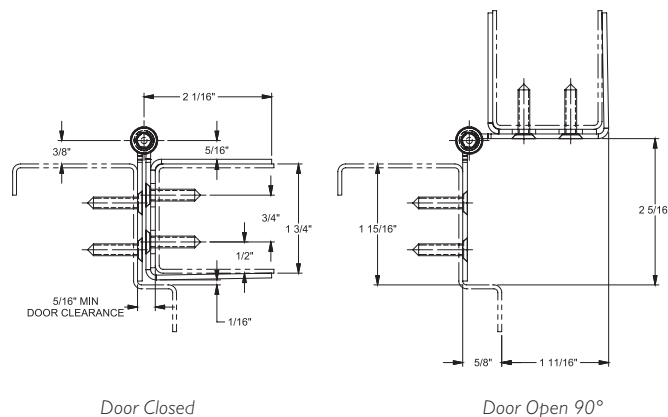
Electrical Modifications

Adjustable monitoring switch - suffix
hinge "AMS"
Current Transfer Prep - suffix "CTP"
Electrical Transfer Access Prep - suffix
"ETAP"

ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

Occasionally the need arises for an extended door wrap. Markar meets this need with the HG322. All the features of the HG305 Hinge/Guard plus 2" extensions.



HG323 Edge Mount Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

Fasteners concealed when door is closed
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and composite core wood fire doors
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
 Custom hole pattern
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"
 Raised barrel - suffix "RB"
 Special sheared leaf

Fasteners

Tamper-proof security screws

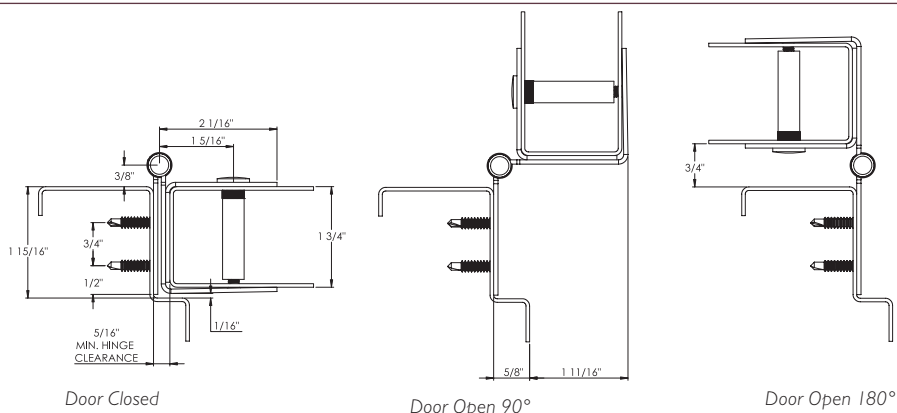
Electrical Modifications

Adjustable monitoring switch – suffix "AMS"
 Current Transfer Prep – suffix "CTP"
 Electrical Transfer Access Prep - suffix "ETAP"

ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

This extended wrap model allows you to sandwich the door between two leaves of stainless steel and through bolt them together. It is ideal where doors have split and you want to save them.



FM/SC325 Edge Mount Swing Clear Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel
Cover - extruded aluminum

Finishes

US32D Satin Stainless Steel (630)
Cover - brushed aluminum

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and composite
20 minutes- wood doors



Classified in accordance with
UL10C for positive pressure
Fire-rated label

Optional Features

Finish

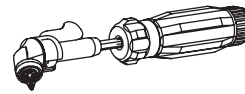
US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated
Paint

Other Features

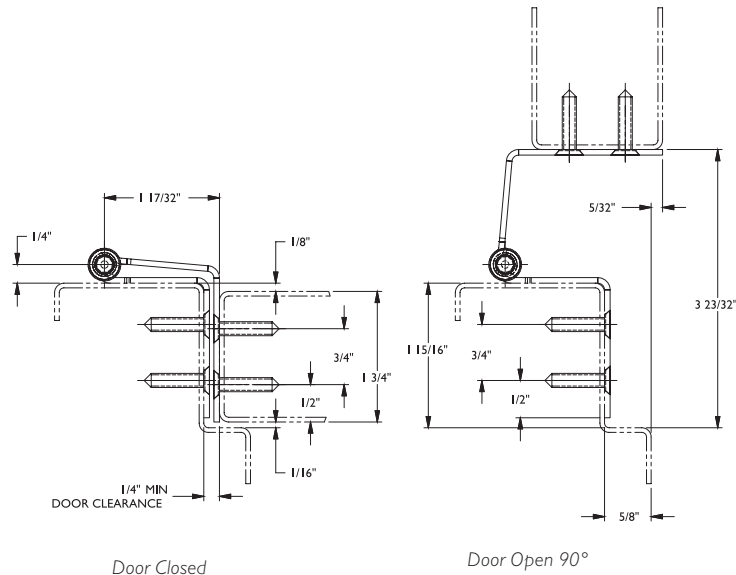
Custom lengths- specify in inches
Custom hole pattern
1 3/4" aluminum sleeve bolts
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"
Lead lined cover with 1/16" lead lining -
suffix "LL"

Tools

MTSP-100 Right angle skewdriver for
ease of installation



This hinge is used to ensure that a door opened to a 90-degree angle is removed from the opening. This hinge will mount on a 1 3/4" face, and is especially useful for ADA upgrade work.



HG326 Swing Clear Hinge Guard

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
 Grade 1

Mounting Hardware

Fasteners concealed when door is closed
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Door Edge

Specify square or beveled edge when ordering

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and composite core wood fire doors
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

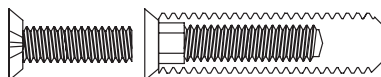
US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
 Custom hole pattern
 Dutch door hinges- suffix "DDP"
 Hospital tips - suffix "HT"
 Raised barrel - suffix "RB"
 Special sheared leaf

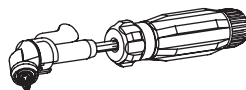
Fasteners

Tamper-proof security screws
 Adjust-A-Screw™ for correcting frame fit problems up to 3/8"



Tools

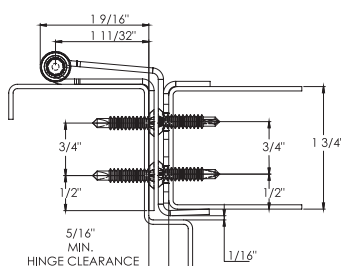
MTSP-100 Right angle skewdriver for ease of installation



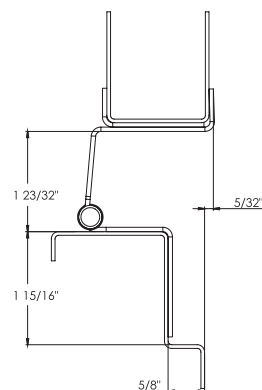
Electrical Modifications

Current Transfer Prep - suffix "CTP"

The incorporated edge guard protects the door from unsightly dents and gouges while also protecting the hinge from vandalism.



Door Closed



Door Open 90°

FM327 Edge Mount Safety Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

No exposed mounting fasteners
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0"
or 10'0". Specify handing for 6'8" and
7'2" and for most optional features

Fire Rating

This hinge is not fire rated

Optional Features

Finishes

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated Paint

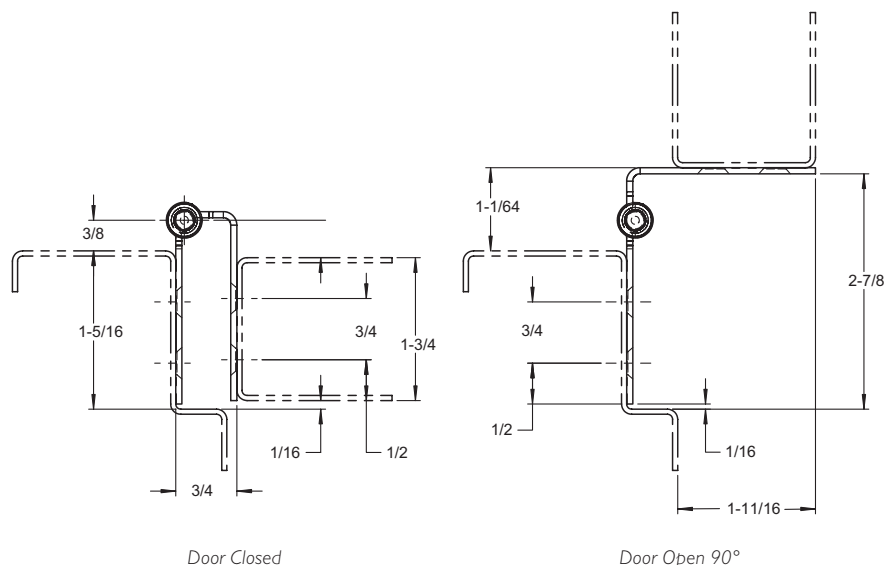
Other Features

Custom lengths- specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Raised barrel - suffix "RB"
Special sheared leaf

Fasteners

Tamper-proof security screws

This unique design prevents small fingers from getting pinched in the door. It is ideal for elementary schools, day care, childcare, and nursing home facilities. This full-length continuous pin & barrel hinge also provides privacy by blocking sight lines into rooms. The hinge must be used with a cased open type frame.



HG329 Swing Clear Hinge Guard for Square Edge Door

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Standards

ANSI/BHMA Standard A156.26

Grade 1

Mounting Hardware

No exposed mounting fasteners when closed
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated
 Specify handing

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and composite core wood fire doors
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

US32 Bright Stainless Steel (629)
 Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
 Custom hole pattern
 Hospital tips - suffix "HT"
 Raised barrel - suffix "RB"
 Special sheared leaf

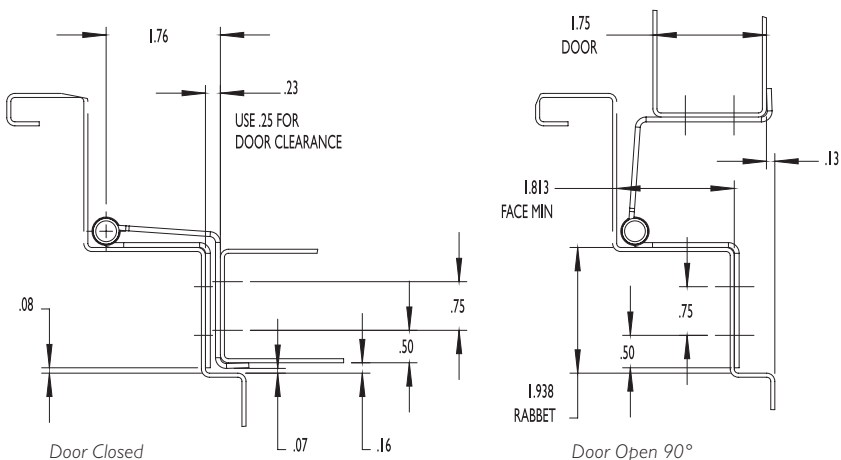
Fasteners

Tamper-proof security screws
 Dutch door hinges- suffix "DDP"

Electrical Modifications

Current Transfer Prep - suffix "CTP"
 Adjustable monitoring switch - suffix "AMS"

The incorporated edge guard protects the door from unsightly dents and gouges while also protecting the hinge from vandalism.



EG308 Edge Guard

Standard Features

Material

Heavy-duty 16 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Mounting Hardware

Fasteners concealed when door is closed

Included fasteners are:

10 x $\frac{7}{8}$ " Philips F.H.U.C. self drilling
#410SS screws

10 x $\frac{1}{4}$ " F.H.U.C Sheet Metal
Screws

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Door Edge

Specify square or beveled edge
when ordering (beveled edge
standard)



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

MAY NOT APPLY TO ALL
WOOD DOORS. PLEASE
CONSULT FACTORY FOR
SPECIFIC WOOD DOOR
APPLICATIONS.

Optional Features

Finish

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder
Coated Paint

Hardware Cutouts

(requires handing information)

Flush bolts

ASA strike

Deadlock strike and latch

86 edge and ASA lock

Hospital latch

161 cutout

Other Features

Custom lengths - specify in inches
Custom hole pattern for lead-lined
doors

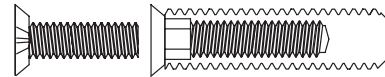
Custom cutouts

Dutch door application - suffix "DDP"

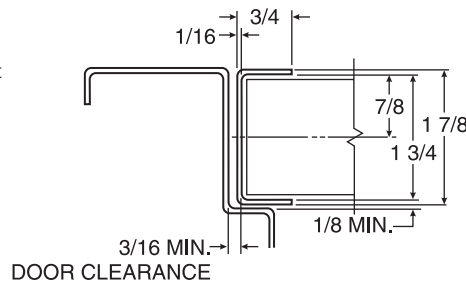
Fasteners

Tamper-proof security screws

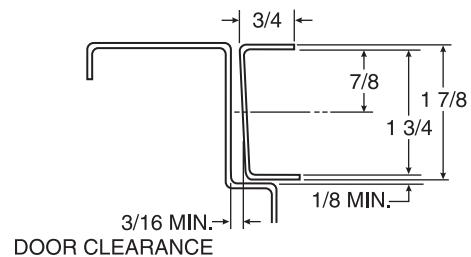
Adjust-A-Screw™ for correcting
frame fit problems up to $\frac{3}{8}$ "



This fire-labeled edge guard is used
in conjunction with the HG305
Hinge/Guard for a balanced aesthetic
look. It also provides protection for
the leading edge of the door.



Square edge door



Bevel edge door

EGC308 Edge Guard

Standard Features

Material

Heavy-duty 16 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Mounting Hardware

Fasteners concealed when door is closed

Included fasteners are:

10 x $\frac{7}{8}$ " Philips F.H.U.C. self drilling #410SS screws

10 x $1\frac{1}{4}$ " F.H.U.C Sheet Metal Screws

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Door Edge

Specify square or beveled edge when ordering (beveled edge standard)



Classified in accordance with UL10C for positive pressure



Fire-rated label

MAY NOT APPLY TO ALL WOOD DOORS. PLEASE CONSULT FACTORY FOR SPECIFIC WOOD DOOR APPLICATIONS.

Optional Features

Finish

US32 Bright Stainless Steel (629)
Scratch-Resistant Powder Coated Paint

Hardware Cutouts

(requires handing information)

Flush bolts
ASA strike
Deadlock strike and latch
86 edge and ASA lock
Hospital latch
161 cutout

Measurements should be given from Top of door to centerline of cutout.

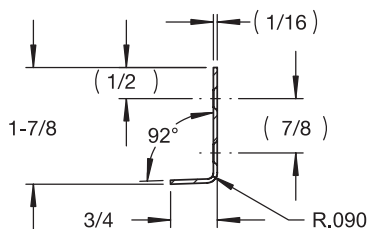
Other Features

Custom lengths - specify in inches
Custom hole pattern for lead-lined doors
Custom cutouts
Dutch door application - suffix "DDP"

Fasteners

Tamper-proof security screws

This fire-labeled edge guard works with the HG315 Hinge/Guard. It provides protection to the leading edge of the door, while maintaining the door's aesthetic appearance in the closed position.



EGT308 Edge Guard

Standard Features

Material

Heavy-duty 16 gauge stainless steel

Finishes

US32D Satin Stainless Steel (630)

Mounting Hardware

Fasteners concealed when door is closed

Included fasteners are:

10 x $\frac{7}{8}$ " Philips F.H.U.C. self drilling #410SS screws

10 x $1\frac{1}{4}$ " F.H.U.C Sheet Metal Screws

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Door Edge

Specify square or beveled edge when ordering (beveled edge standard)



Classified in accordance with UL10C for positive pressure



Fire-rated label

MAY NOT APPLY TO ALL WOOD DOORS. PLEASE CONSULT FACTORY FOR SPECIFIC WOOD DOOR APPLICATIONS.

Optional Features

Finish

US32 Bright Stainless Steel (629)

Scratch-Resistant Powder Coated Paint

Hardware Cutouts

(requires handing information)

Flush bolts

ASA strike

Deadlock strike and latch

86 edge and ASA lock

Hospital latch

161 cutout

Measurements should be given from Top of door to centerline of cutout.

Other Features

Custom lengths - specify in inches

Custom hole pattern for lead-lined doors

Custom cutouts

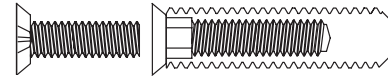
Dutch door application - suffix "DDP"

Lead lined astragal with $\frac{1}{4}$ " lead lining - suffix "LL"

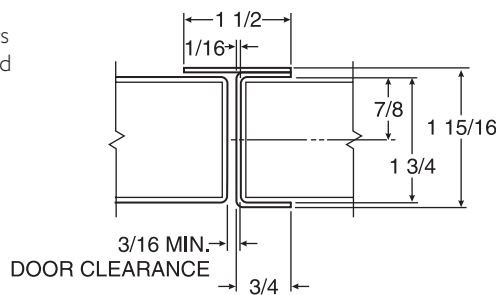
Fasteners

Tamper-proof security screws

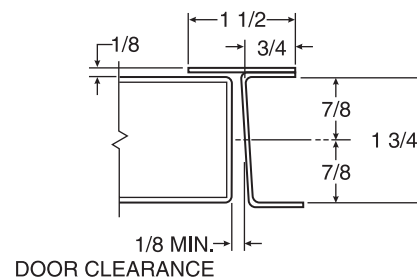
Adjust-A-Screw™ for correcting frame fit problems up to $\frac{3}{8}$ "



The integral overlapping astragal of the EGT308 provides additional security by protecting the latch protector. It is ideal for exterior pairs of doors or doors that require added protection from vandalism.

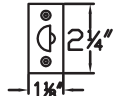
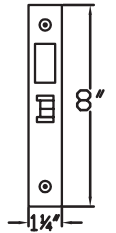
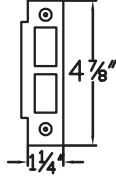
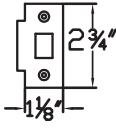
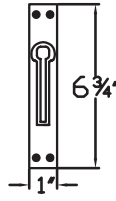
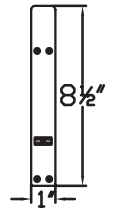
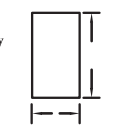
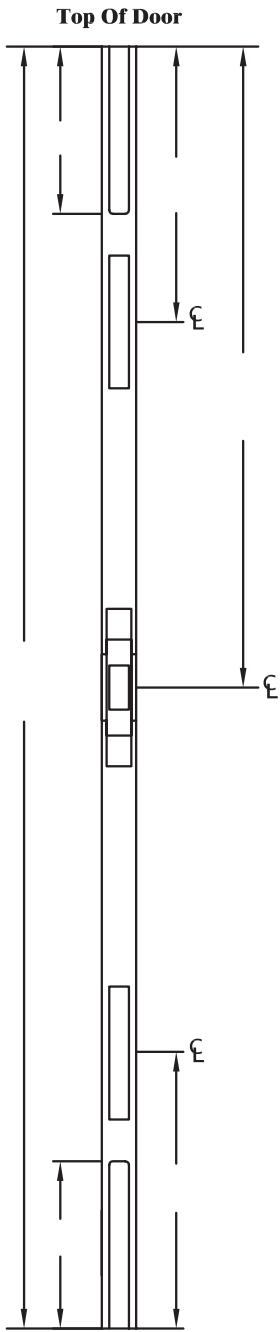
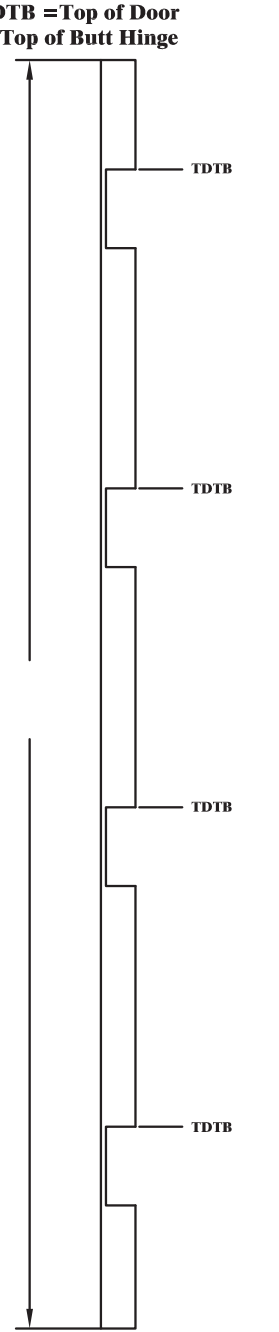


Square edge door



Bevel edge door

EDGE GUARD ORDER FORM

☐ 161 Latch Bolt  ☐ 86 Mortise Lock  ☐ ASA Strike  ☐ 161 Strike  ☐ Manual Flush Bolt/ Auto Flush Bolt (Hollow Metal Door)  ☐ Auto Flush Bolt (Wood Door)  ☐ Custom (Please specify Dimensions)  ☐ Fire Bolt (Specify Hole Size) _____	Top Of Door 	☐ For use on 1 3/4" door ☐ For use on 1 7/8" door ☐ For use on _____" door ☐ EDGE GUARD ☐ ASTRAGAL ☐ EG-C ☐ Z ASTRAGAL QUANTITY: _____ <u>DOOR EDGE</u> ☐ SQUARE ☐ BEVEL <u>HANDING</u> ☐ LH/ RHR ACTIVE ☐ RH/LHR ACTIVE ☐ LH/RHR INACTIVE ☐ RH/LHR INACTIVE <u>Butt Hinge Size</u> ☐ 4 1/2" x 4 1/2" ☐ 5" x 5" ☐ Custom <u>DOOR TAG INFO</u> _____ _____ _____ _____ _____ <u>Special Instructions</u> _____ _____ _____ _____ _____	TDTB = Top of Door to Top of Butt Hinge 
Customer:	I, the undersigned, approve the design and dimensions as shown on this print, and authorize the fabrication of these Edge Guards as indicated.		
P.O. No.	Signed:		
*DRAWING SUBMITTAL AND FACTORY APPROVAL REQUIRED PRIOR TO ORDER ENTRY			

MEMPHIS, TN USA
 phone: 800 824-3018
 fax: 800 243-3656

4226 Transport Street
 Ventura, CA 93003 USA

5535 Distribution Drive
 Memphis, TN 38141 USA
 information@markar.com
 www.markar.com

200 Series Pin & Barrel Type Continuous Steel Hinges

Short Form Architectural Specification:

Continuous hinges shall be full height piano-type hinge providing full height door support.

- Supports weights up to 600 lbs. 4'0" maximum door width
- Material to be 14 gauge 1012 carbon steel
- .187" diameter stainless steel pin (rod)
- Each knuckle 2", including nylon bearing at each separation for a quiet, smooth, self-lubricating operation
- Finish: Gray Powder Coat Primer
Optional Finish: Scratch-Resistant Powder Coated Paint
- All hinges shall be furnished with manufacturer's recommended hardware pack per specific model application
- Must use undercut head screws
- Must be able to carry Warnock Hersey Int. or UL fire rated doors and frames up to 3 hours
- Hinges shall meet ANSI/BHMA Standard A 156.26 Grade 1
- Symmetrically templated hole pattern

Note: 10-Year Warranty on all Continuous Hinges
25-Year Warranty with Medical Bearings

Note: Fire label for doors and frames should be placed on the header and top rail of fire rated doors and frames

FM200 Edge Mount Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Stainless steel end pins

Material

Heavy-duty 14 gauge 1012 carbon steel

Finishes

Gray Powder Coat Primer

Standards

ANSI/BHMA Standard A156.26
Grade 1

Mounting Hardware

No exposed mounting fasteners
Universal screw pack

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Handing

Not required for standard 7'0",
8'0" or 10'0". Specify handing
for 6'8" and 7'2" and for most
optional features

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and
composite core wood fire doors
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finish

Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths - specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"
Raised barrel - suffix "RB"
Special sheared leaf

Fasteners

Tamper-proof security screws

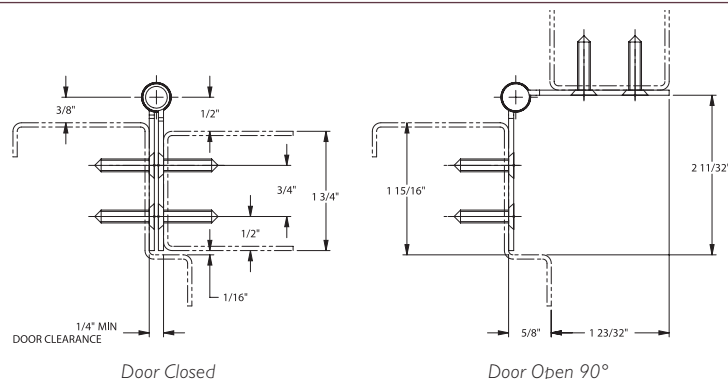
Electrical Modifications

Current Transfer Prep (frame leaf only)
- suffix "CTP"
Adjustable monitoring switch
- suffix "AMS"

ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

This edge-mounted pin & barrel hinge is used on many traffic, high abuse interior doors. The hinge works well in locations that used anchor hinges, pivot reinforced hinges, or thrust pivot unit and hinge sets. This hinge saves on special door and frame preparation charges. It can be used on both fire labeled and non-labeled openings.



FS201 Full Surface 1/8" Inset Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearing
 Stainless steel end pins

Material

Heavy-duty 14 gauge 1012 carbon steel

Finishes

Gray Powder Coat Primer

Standards

ANSI/BHMA Standard A156.26 Grade 1

Mounting Hardware

No exposed mounting fasteners
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Handing

Not required for standard 7'0",
 8'0" or 10'0". Specify handing
 for 6'8" and 7'2" and for most
 optional features

Fire Rating

3 hours- hollow metal doors
 90 minutes- hollow metal and
 composite core wood fire doors
 20 minutes- wood doors



Classified in accordance
 with UL10C for positive
 pressure



Fire-rated label

Optional Features

Finish

Scratch-Resistant Powder
 Coated Paint

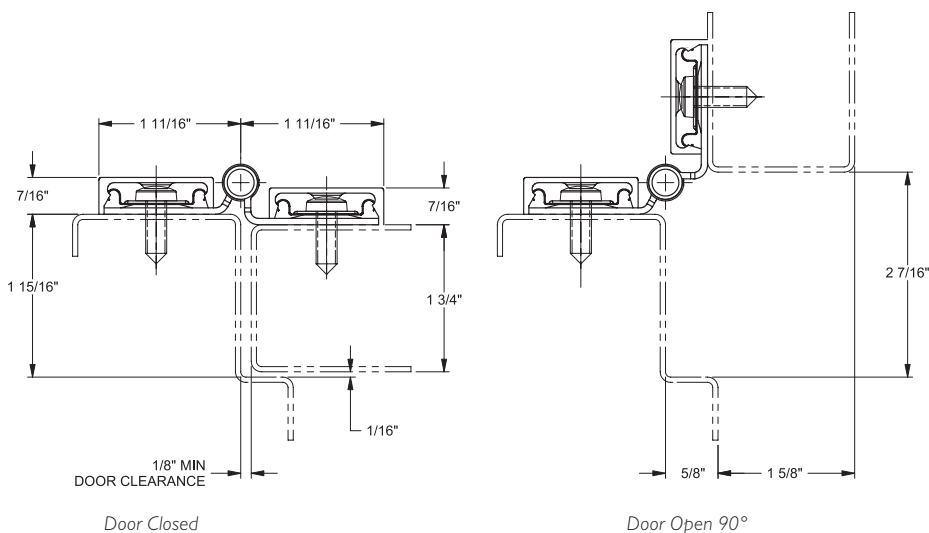
Other Features

Custom lengths - specify in inches
 Custom hole pattern
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"
 Raised barrel - suffix "RB"
 Lead-lined cover with 1/16" lead lining -
 suffix "LL"

Fasteners

15/8" steel sleeve bolts
 Tamper-proof security screws

This surface-mounted pin & barrel continuous hinge can be used to repair and replace existing hinges on both fire-labeled and non-labeled doors that have very tight clearances. The hinge has a built-in 1/8" offset to assist in weather seal and sound barrier areas.



FS202 Full Surface Flush Mount Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearing
Stainless steel end pins

Material

Heavy-duty 14 gauge 1012 carbon steel

Finishes

Gray Powder Coat Primer

Standards

ANSI/BHMA Standard A156.26 Grade 2

Mounting Hardware

No exposed mounting fasteners
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Decorative Fastener Covers

Aluminum

Handing

Not required for standard 7'0",
8'0" or 10'0". Specify handing
for 6'8" and 7'2" and for most
optional features

Fire Rating

3 hours- hollow metal doors
90 minutes- hollow metal and
composite core wood fire doors
20 minutes- wood doors



Classified in accordance
with UL10C for positive
pressure



Fire-rated label

Optional Features

Finish

Scratch-Resistant Powder Coated Paint

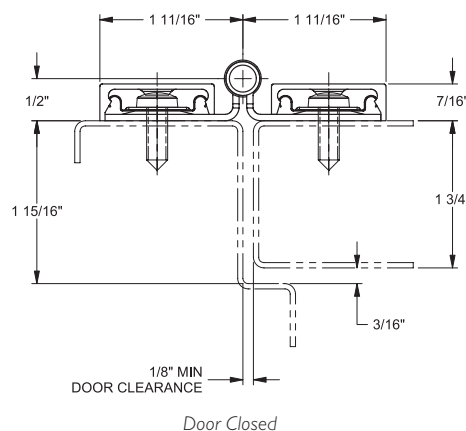
Other Features

Custom lengths - specify in inches
Custom hole pattern
1 3/4" aluminum sleeve bolts
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"
Raised barrel - suffix "RB"
Lead-lined cover with 1/16" lead lining -
suffix "LL"

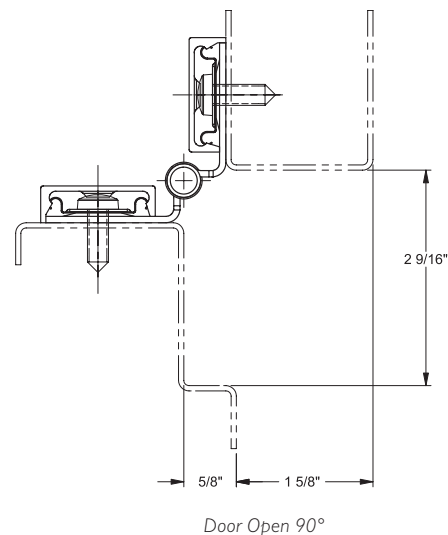
Fasteners

1 5/8" steel sleeve bolts
Tamper-proof security screws

For flush doors. This surface-mounted pin & barrel continuous hinge can be used to repair and replace existing hinges on both fire-labeled and non-labeled doors that have very tight clearances.



Door Closed



Door Open 90°

HS203 Half Surface

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Stainless steel end pins

Material

Heavy-duty 14 gauge 1012 carbon steel
 Cover - extruded aluminum

Finishes

Gray Powder Coat Primer
 Cover - Mill Finish

Standards

ANSI/BHMA Standard A156.26 Grade 1

Mounting Hardware

No exposed mounting fasteners
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" or 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Fire Rating

3 hours- hollow metal doors mounted singly
 90 minutes- hollow metal and composite
 20 minutes- wood doors



Classified in accordance with UL10C for positive pressure



Fire-rated label

Optional Features

Finishes

Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths - specify in inches
 Custom hole pattern
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"
 Raised barrel - suffix "RB"
 Special sheared leaf
 Lead-lined cover with 1/16" lead-lining - suffix "LL"

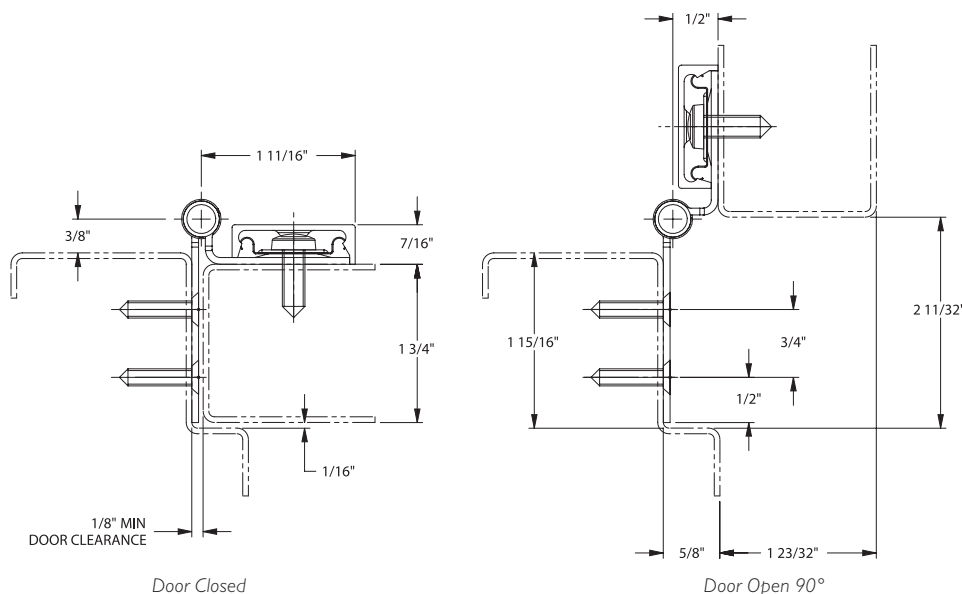
Fasteners

1 5/8" steel sleeve bolts
 Tamper-proof security screws

Electrical Modifications

Current Transfer Prep (frame leaf only) - suffix "CTP"

This half-surface pin & barrel continuous hinge can be used to repair and replace existing hinges on both fire-labeled and non-labeled openings. The hinge fits into the gap left after standard butt hinges are removed. It can assist in reversing the handing of a door, or to reverse the swing of a door hung in an evenly-rabbetted frame. (Please contact the factory for instructions for unevenly-rabbetted frames.)



100 Series Pin & Barrel Type Continuous Aluminum Hinges

Short Form Architectural Specification:

Continuous hinges shall be full height piano-type hinge providing full height door support.

- Supports weights up to 600 lbs. 4'0" maximum door width
- Material to be extruded aluminum 6063-T6 alloy
- .187" diameter stainless pin (rod)
- Each knuckle 2", including nylon bearing at each separation for a quiet, smooth, self-lubricating operation
- Finish: Clear Anodized (628), Dark Bronze Anodized (313)
Optional Finish: Light Bronze Anodized (311), Black Anodized (315), Scratch-Resistant Powder Coated Paint.
Other finishes available upon request.
- Hinge pin cap
- All hinges shall be furnished with manufacturer's recommended hardware pack per specific model application
- Exterior barrel diameter .515" ($\frac{1}{2}$ inch)
- Material thickness less than .125 inches
- Material weight will be no less than 1.5 lbs. per foot
- Hinges shall meet ANSI/BHMA Standard A 156.26 Grade 2
- Symmetrically templated hole pattern

Note: 10-Year Warranty on all Continuous Pin & Barrel Hinges
25-Year Warranty with Medical Bearings

FM100 Edge Mount Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Steel end pins

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)
Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26
Grade 2

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0", 10'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0", 8'0" and 10'0". Specify handing for 6'8" and 7'2" and for most optional features

Optional Features

Finishes

Light Bronze Anodized (311)
Black Anodized (315)
Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths - specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"

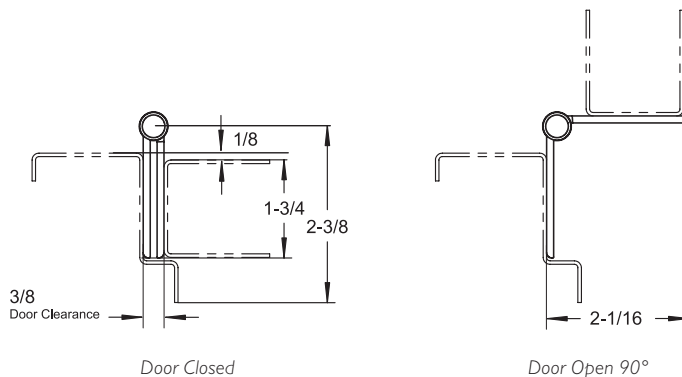
Electrical Modifications

Adjustable monitoring switch - suffix "AMS"
Current Transfer Prep - suffix "CTP"
Electrical Transfer Access Prep - suffix "ETAP"

ElectroLynx™

EL4 (4 wire), EL8 (8 wire), EL12 (12 wire)

This door-edge mounted aluminum pin & barrel type hinge is extruded using 30% more aluminum than most geared hinges, giving it exceptional strength and durability. This product is specified in lieu of pivots or butt hinges due to its unique design which distributes the weight of the door down the entire length of the hinge.



FS101 Full Surface 1/8" Inset Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Steel end pins

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)
 Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26
 Grade 2

Mounting Hardware

No exposed mounting fasteners
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0"

Locking Security Covers

Brushed aluminum finish

Handing

Not required for standard 7'0" and 8'0". Handing required for 6'8" and 7'2" and for most optional features listed

Optional Features

Finishes

Light Bronze Anodized (311)
 Black Anodized (315)
 Scratch-Resistant Powder Coated Paint

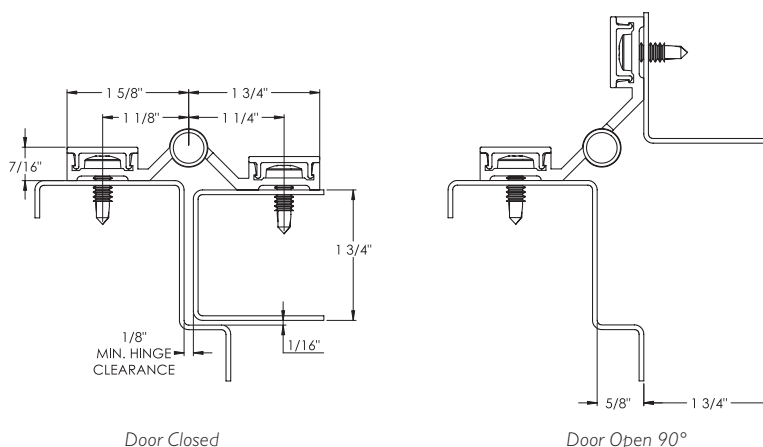
Other Features

Custom lengths - specify in inches
 Custom hole pattern
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"
 Lead lined cover with 1/16" lead lining - suffix "LL"

Fasteners

1 1/8" steel sleeve bolts
 Tamper-proof security screws

This surface-mounted pin & barrel type continuous hinge is the correct hinge to solve door sag problems. The 1/8" inset allows perfect alignment for retrofitting hollow metal, wood or aluminum doors within the existing conditions - no need to readjust your weather-stripping!



FS102 Full Surface Flush Mount Hinge

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Steel end pins

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)
Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26
Grade 2

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0"

Locking Security Covers

Brushed aluminum finish

Handing

Not required for standard 7'0" or 8'0".
Handing required for 6'8" and 7'0" and
for most optional features listed

Optional Features

Finish

Light Bronze Anodized (311)
Black Anodized (315)
Scratch-Resistant Powder
Coated Paint

Other Features

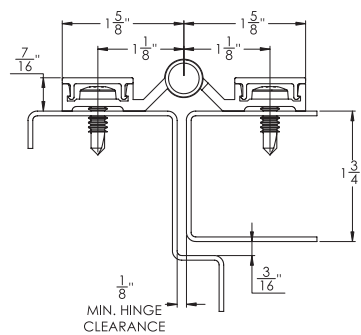
Custom lengths - specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"
Lead lined cover with $\frac{1}{16}$ " lead lining -
suffix "LL"

Fasteners

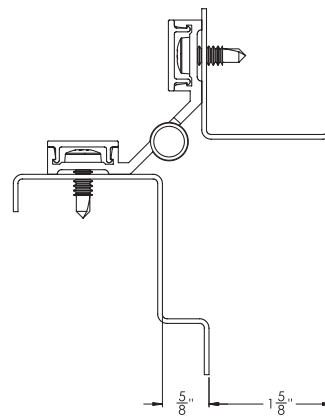
$1\frac{1}{8}$ " steel sleeve bolts
Tamper-proof security screws

For flush-mounted doors. This surface-mounted pin & barrel type continuous hinge is for flush-mounted doors for solving your door sag problems.

This unit works well on all types of aluminum, wood and hollow metal door applications. The hinge also features tamper-resistant cover caps to prevent vandalism or break-ins.



Door Closed



Door Open 90°

HS103 Half Surface

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Steel end pins

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)
 Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26
 Grade 2

Mounting Hardware

Fasteners concealed when door is closed
 Universal screw pack provided

Capacity

Supports weights up to 600lbs.
 4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0"

Locking Security Covers

Brushed aluminum finish

Handing

Not required for standard 7'0" or 8'0". Specify handing for 6'8" and 7'2" and for most optional features

Optional Features

Finish

Light Bronze Anodized (311)
 Black Anodized (315)
 Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches
 Custom hole pattern
 Dutch door hinges- suffix "DDP"
 Hospital tips – suffix "HT"
 Lead lined cover with 1/16" lead lining - suffix "LL"

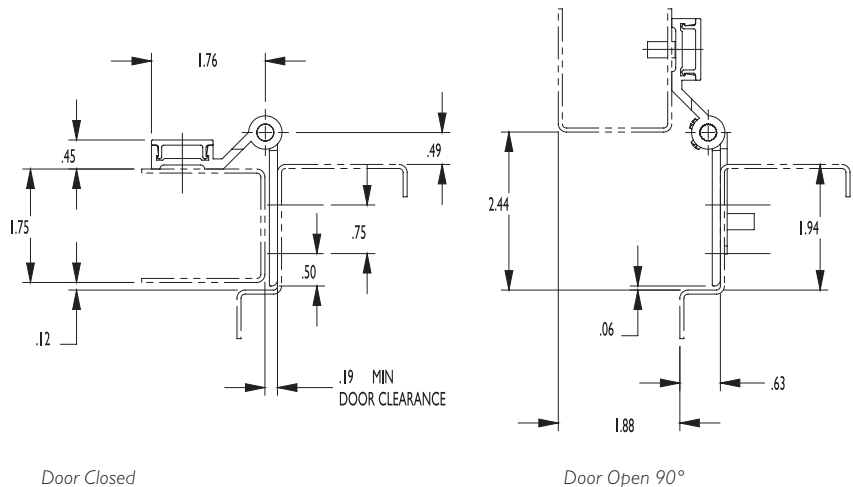
Fasteners

1 5/8" steel sleeve bolts
 Tamper-proof security screws

Electrical Modifications

Current Transfer Prep (frame leaf only) - suffix "CTP"

This half-surface aluminum pin & barrel hinge can be used to repair doors that need the frame reinforced. This hinge can also be used on openings that have too large a gap between the door and frame. The hinge is edge mounted on the frame mounted on the frame and surface mounted on the door.



HG105 Hinge/Guard

Standard Features

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Steel end pins

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)
Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26
Grade 2

Mounting Hardware

No exposed mounting fasteners
when door is closed
Universal screw pack provided

Capacity

Supports weights up to 600lbs.
4'0" maximum door width

Standard Sizes

6'8", 7'0", 7'2", 8'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0",
8'0" or 10'0". Handing required for
6'8" and 7'2" and for most optional
features listed

Optional Features

Finishes

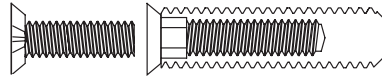
Light Bronze Anodized (311)
Black Anodized (315)
Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths - specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"

Fasteners

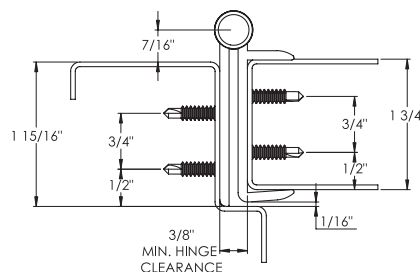
Tamper-proof security screws
Adjust-A-Screw™ for correcting
frame fit problems up to $\frac{3}{8}$ "



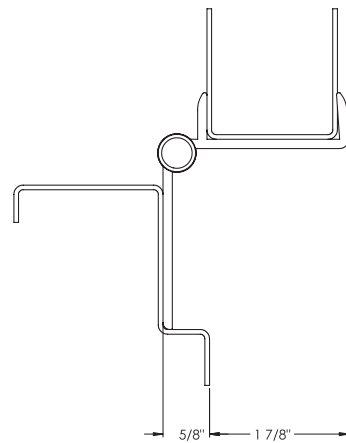
Electrical Modifications

Adjustable monitoring switch
- suffix "AMS"
Current Transfer Prep - suffix "CTP"

This pin and barrel edge-mounted hinge can be used in conjunction with automatically operated aluminum doors that have heavy cart traffic. Ideal for both commercial and institutional doors, shipping and receiving doors, as well as storefronts where door edge protection is critical.



Door Closed



Door Open 90°

EG108 Edge Guard

Standard Features

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)

Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26

Grade 1

Mounting Hardware

Fasteners concealed when door is closed

Universal screw pack provided

Standard Sizes

6'8", 7'0", 7'2", 8'0"

Hole Pattern

Symmetrically templated

Non-handed

Optional Features

Finishes

Light Bronze Anodized (311)

Black Anodized (315)

Scratch-Resistant Powder Coated Paint

Other Features

Custom lengths- specify in inches

Custom cutouts

Custom hole pattern for lead-lined doors

Dutch door application - suffix "DDP"

Hardware Cutouts

(requires handing information)

Flush bolts

ASA strike

Deadlock strike and latch

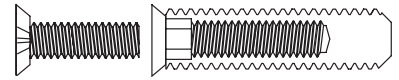
86 edge and ASA lock

Hospital latch

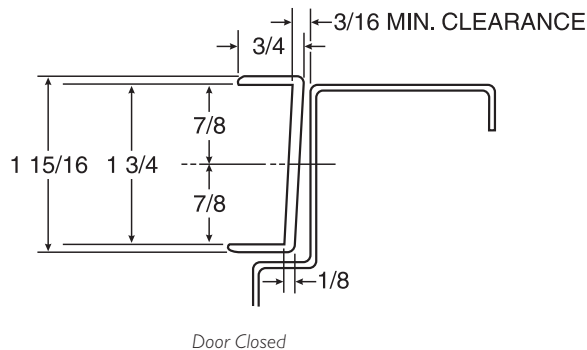
161 cutout

Measurements should be given from
Top of door to centerline of cutout.
Fasteners

Tamper-proof security screws

Adjust-A-Screw™ for correcting frame fit problems up to $\frac{3}{8}$ "


This aluminum edge guard features a full wrap on the lock side of the door that prevents unsightly dents and gouges. When used in conjunction with the HG105 Hinge/Guard it provides a balanced, aesthetic look.



1100 Series Pin & Barrel Type Continuous Aluminum Hinges

Short Form Architectural Specification:

Continuous hinges shall be full height piano-type hinge providing full height door support.

- Supports weights up to 300 lbs. 3'0" maximum door width
- Material to be extruded aluminum 6063-T6 alloy
- .187" diameter stainless steel pin (rod)
- Each knuckle 2", including split nylon bearing at each separation for a quiet, smooth, self-lubricating operation
- Finish: Clear Anodized (628), Dark Bronze Anodized (313)
Optional Finish: Light Bronze Anodized (311), Black Anodized (315), Scratch-Resistant Powder Coated Paint.
Other finishes available upon request.
- Hinge pin cap
- All hinges shall be furnished with manufacturer's recommended hardware pack per specific model application
- Exterior barrel diameter .375" ($\frac{3}{8}$ ")
- Hinges shall meet ANSI/BHMA Standard A 156.26 Grade 3
- Symmetrically templated hole pattern

Note: 10-Year Warranty on all Continuous Pin & Barrel Hinges
25-Year Warranty with Medical Bearings

FM1100 Edge Mount – Self-Aligning

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
Flanged nylon bearings
Steel end pins

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)
Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26
Grade 3

Mounting Hardware

Fasteners concealed when door is closed
Universal screw pack provided

Capacity

Supports weights up to 300lbs.

Standard Sizes

6'8", 7'0", 7'2", 8'0"
3'-0" maximum door width

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0",
8'0". Specify handing for 6'8"
and 7'2" and for most optional
features

Optional Features

Finishes

Light Bronze Anodized (311)
Black Anodized (315)
Scratch-Resistant Powder Coated Paint

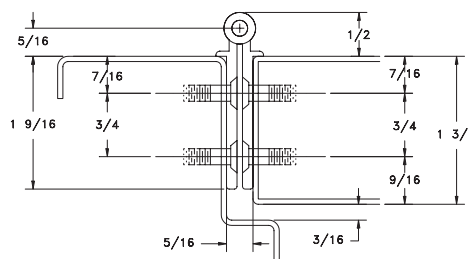
Other Features

Custom lengths - specify in inches
Custom hole pattern
Dutch door hinges - suffix "DDP"
Hospital tips - suffix "HT"

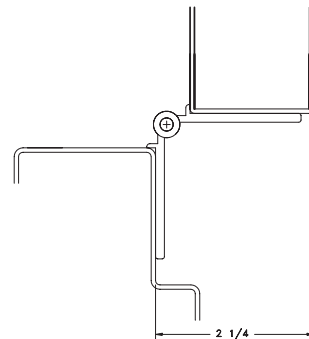
Fasteners

Tamper-proof security screws

Use this edge mounted aluminum pin and barrel hinge on any store front entry system or aluminum curtain-wall project. This hinge can be used anywhere that would have required reinforcing pivots in the past.



Door Closed



Door Open 90°

FM1111 Edge Mount – Self Aligning

Standard Features

Barrel Type Hinge

.187" diameter stainless steel pin (rod)
 Flanged nylon bearings
 Steel end pins

Material

6063-T6 aluminum alloy

Finishes

Clear Anodized (628)
 Dark Bronze Anodized (313)

Standards

ANSI/BHMA Standard A156.26 Grade 3

Mounting Hardware

Fasteners concealed when door is closed
 Universal screw pack provided

Capacity

Supports weights up to 300lbs.

Standard Sizes

6'8", 7'0", 7'2", 8'0"

Hole Pattern

Symmetrically templated

Handing

Not required for standard 7'0" and 8'0". Specify handing for 6'8" and 7'2" and for most optional features listed

Optional Features

Finishes

Light Bronze Anodized (311)
 Black Anodized (315)
 Scratch-Resistant Powder Coated Paint

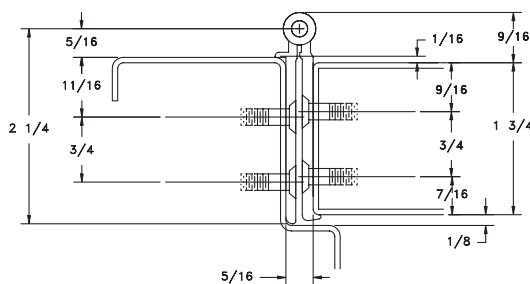
Other Features

Custom lengths - specify in inches
 Custom hole pattern
 Dutch door hinges - suffix "DDP"
 Hospital tips - suffix "HT"

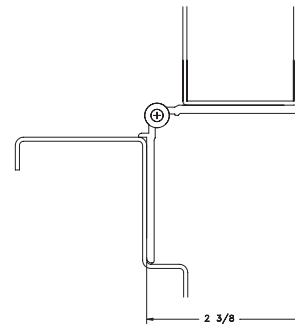
Fasteners

Tamper-proof security screws

Use this edge mounted aluminum pin and barrel hinge on any of today's store front entry systems and aluminum curtain-wall projects. This hinge can be used anywhere that would have required reinforcing pivots in the past.



Door Closed



Door Open 90°

900 Series Spring Loaded Pin & Barrel Type Continuous Stainless Steel Hinges

Short Form Architectural Specification:

Continuous hinges shall be full height piano-type hinge providing full height door support.

- Supports weights up to 80 lbs. 3'0" maximum door width
- Material to be 14 gauge stainless steel
- Patented .25" diameter 303 stainless steel self closing pin assembly
- Exterior barrel diameter .438" ($\frac{7}{16}$ ")
- Adjustable, tamper resistant Torx Head end caps
- Each knuckle 2", including split nylon bearing at each separation for a quiet, smooth, self-lubricating operation
- Finish: US32D Satin Stainless Steel (630)
Optional Finish: US32 Bright Stainless Steel (629)
- Non-Handed
- All hinges shall be furnished with manufacturer's recommended hardware pack per specific model application
- Removable roll pin for spring loaded adjustment
- Symmetrically templated hole pattern

Note: 10-Year Warranty on all Continuous Pin & Barrel Hinges

FS902 Flush Mount

Standard Features

Spring-Loaded Barrel Type Hinge

.25" diameter stainless steel pin with stainless steel spring mechanism
Torx tip cap to adjust spring tension
Split nylon bearings
28 bearing surfaces

Material

Heavy-duty 14 gauge stainless steel
Covers - extruded aluminum

Finishes

US32D Satin Stainless Steel (630)
Covers - Brushed Aluminum

Torx Adjusting Screw

Adjust tension on door to close tightly for out-swinging ADA compliance

Mounting Hardware

$\frac{1}{4}$ " x 20 pan head pan head machine screws
Concealed by cover caps

Capacity

Close door weighing up to 80lbs.

Sizes

54", 57"

Non-Handed

Use the same hinge for right- or left-handed doors

For Doors over 3'0" consult factory

USA patent no. 4823437

Canadian patent no. 1303804

Optional Features

Finishes

US32 Bright Stainless Steel (629)

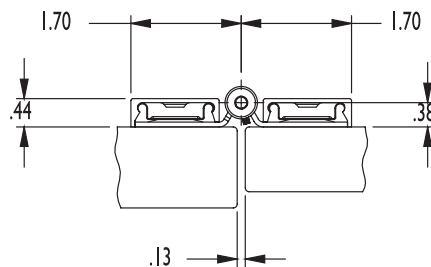
Other Features

Custom lengths - specify in inches
Custom hole pattern

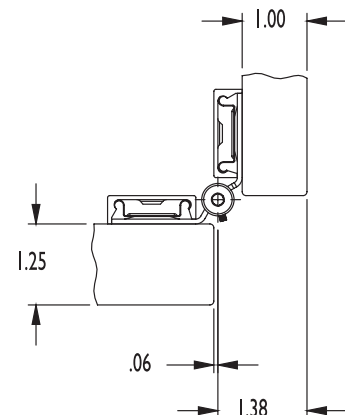
Fasteners

Tamper-proof security screws

Ideal for damp or corrosive environments, Markar's stainless steel toilet partition hinge adds years of life to your high-quality partition.



Door Closed



Door Open 90°

400 Series Spring Loaded Pin & Barrel Type Continuous Aluminum Hinges

Short Form Architectural Specification:

Continuous hinges shall be full height piano-type hinge providing full height door support.

- Supports weights up to 80lbs. 3'0" maximum width
- Material to be extruded aluminum 6463-T5 alloy
- Patented .25" diameter 303 stainless steel self closing pin assembly
- Each knuckle 2", including split nylon bearing at each separation for a quiet, smooth, self-lubricating operation
- Finish: Clear Anodized (628). Other finishes available upon request.
- Adjustable, tamper resistant Torx Head end caps
- Non-handed
- Exterior barrel diameter .515" ($\frac{1}{2}$ ")
- Material thickness less than .125"
- Material weight will be no less than 1.5lbs. per foot
- Removable roll pin for spring loaded adjustment
- Symmetrically templated hole pattern

Note: 10-Year Warranty on all Continuous Hinges

FS402 Flush Mount

Standard Features

Spring-Loaded Barrel Type Hinge

.25" diameter stainless steel pin with stainless steel spring mechanism
Torx tip cap to adjust spring tension
Split nylon bearings
28 bearing surfaces

Material

6463-T5 aluminum alloy
Covers - extruded aluminum

Finishes

Clear Anodized (628)

Torx Adjusting Screw

Adjust tension on door to close tightly for out-swinging ADA compliance

Mounting Hardware

Concealed by cover caps

Locking Security Covers

Clear Anodized Aluminum

Capacity

Close door weighing up to 80lbs.

Sizes

54"

Non-Handed

Use the same hinge for right- or left-handed doors

For Doors over 3'0" consult factory

USA patent no. 4823437

Canadian patent no. 1303804

Optional Features

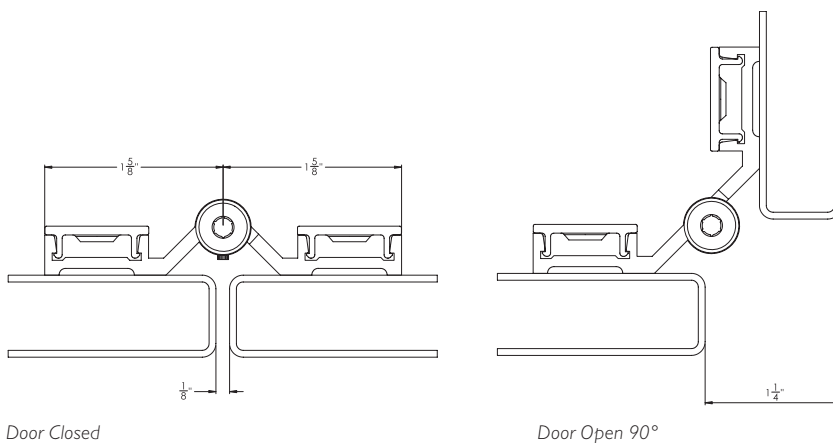
Other Features

Custom lengths - specify in inches
Custom hole pattern
Lift-up safety feature

Fasteners

Tamper-proof security screws

Specify Markar to create the total finished look that your high-quality toilet partition deserves. The Markar continuous spring hinge gives a clean, finished look while virtually eliminating the "sight line" that multi-part systems cause. Continuous hinges also give complete support along the entire length of the partition door.



FSTPI0021 - Self-Closing Gravity Pin & Barrel Hinge (20° open) FSTPI0022 - Self-Closing Gravity Pin & Barrel Hinge (Close)

Standard Features

Self-Closing Gravity Pin & Barrel

.25" diameter stainless steel pin (rod)
Stainless steel end pins

Material

14 gauge stainless steel

Finishes

US32D Brushed Satin Stainless Steel (630)

Mounting Hardware

#14 x 3/4 T-27 Torx Button Head Sheet
Metal Screw

Models

Gravity 20° open - FSTP10021
Gravity Close - FSTP10022

Capacity

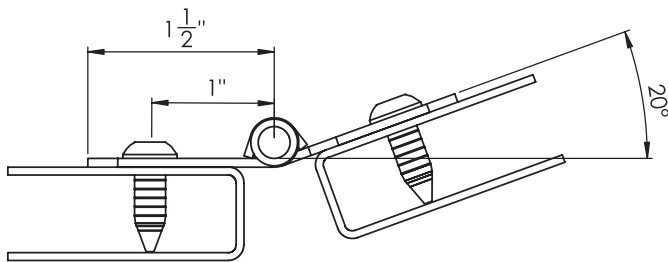
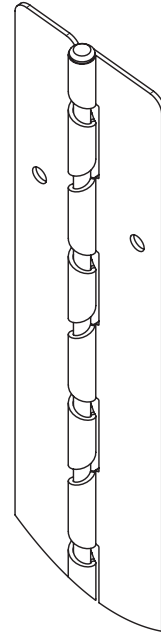
Closes doors weighing up to
80lbs.

Standard Sizes

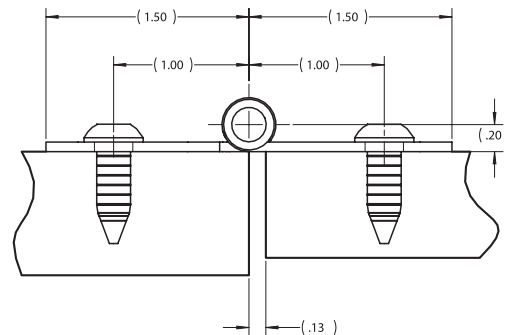
54.5", 73"

Non-Handed

Use the same hinge for right- or
left-handed doors



FSTPI0021 - Door Closed at 20°



FSTPI0022 - Door Closed

Universal Screw Packs – Edge Mount Hinges

For hinge models FM100, FM200, FM1100, & FM1111

Screw type	Aluminum	Bronze	6'8"-7'0"-7'2"	8'0"	10'0"
10-24 x 3/4" Phillips flat head undercut self-drilling Tek screw	MP-12	MP-11	42	46	54
#10 x 1 1/4" Phillips flat head undercut sheet metal screw	MP-28	MP-29	42	46	54

For hinge models FM300, HG311, HG315, & FM327

Screw type	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
#10 x 1 1/4" Phillips flat head undercut sheet metal screw	MP-32	42	46	54
10-24 x 3/4" Phillips flat head undercut self-drilling Tek screw	MP-12	42	46	54

For hinge/guard model HG105

Screw type	Aluminum	Bronze	6'8"-7'0"-7'2"	8'0"	10'0"
10-24 x 3/4" Phillips flat head undercut self-drilling Tek screw	MP-12	MP-11	4	46	54
#10 x 1 1/4" Phillips flat head undercut sheet metal screw	MP-28	MP-29	42	46	54
Adjust-A-Screw™ option	Aluminum	Bronze	6'8"-7'0"-7'2"	8'0"	10'0"
10-32 x 3/4" Phillips flat head undercut machine screw	MP-7	MP-7	21	23	27
1 3/8" Adjust-A-Screw™ with 10-32 internal thread	MP-25	MP-25	21	23	27

For hinge/guard models HG305, HG310, HG322, & HG326

Screw type	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
#10 x 1 1/4" Phillips flat head undercut sheet metal screw	MP-32	42	46	54
10-24 x 3/4" Phillips flat head undercut self-drilling Tek screw	MP-12	42	46	54
Adjust-A-Screw™ option	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
10-32 x 3/4" Phillips flat head undercut machine screw	MP-7	21	23	27
1 3/8" Adjust-A-Screw™ with 10-32 internal thread	MP-25	21	23	27

For hinge/guard model HG323

Screw type	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
#10 x 1 1/4" Phillips flat head undercut sheet metal screw	MP-32	21	23	27
10-24 x 3/4" Phillips flat head undercut self-drilling Tek screw	MP-10	30	32	38
10-24 x 1 3/4" sleeve bolt	MP-34	9	10	11

For edge/guard model EG108

Screw type	Aluminum	Bronze	6'8"-7'0"-7'2"	8'0"	10'0"
#10 x 1 1/4" Phillips flat head undercut sheet metal screw	MP-23	MP-29	8	10	12

For edge/guard models EG308, EGC308, & EGT308

Screw type	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
#10 x 1 1/4" Phillips flat head undercut sheet metal screw	MP-32	8	10	12

For security hinge models FM3500, FS3501, & FS3502

Screw type	Standard	Security	6'8"-7'0"-7'2"	8'0"	10'0"
12-24 x 1/2" flat head undercut machine screw	MP-35	MP-39	42	46	54
MP-35 has a #3 Phillips recess					
MP-39 has a Torx recess with security pin					

Universal Screw Packs – Full Surface Hinges

For models FS101, FS102

Screw type	Aluminum	Bronze	6'8"-7'0"-7'2"	8'0"	10'0"
¼-20 x ¾" Phillips pan head self-drilling Tek screw	MP-13	MP-13	32	36	40
#8 x ¾" Phillips flat head sheet metal screw	MP-8	MP-9	4	4	4

For models FS201, FS202, FS302, & FS321

Screw type	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
¼-20 x ¾" Phillips pan head self-drilling Tek screw	MP-13	32	36	40
Cover clip	MP-606	10	12	16
#8 x ¾" Phillips flat head sheet metal screw	MP-8	4	4	4

For swing clear model FS/SC309

Screw type	Aluminum	6'8"-7'0"-7'2"	8'0"	10'0"
10-24 x ¾" Phillips flat head undercut self-drilling Tek screw	MP-10	22	24	28
¼-20 x ¾" Phillips pan head self-drilling Tek screw	MP-13	16	18	20
#10 x 1¼" Phillips flat head undercut sheet metal screw	MP-32	22	24	28
Cover clip	MP-606	5	6	8
#8 x ¾" Phillips flat head sheet metal screw	MP-8	2	2	2

Universal Screw Packs – Half Surface & Half Mortise Hinges

For hinge models HS103 & HM104

Screw type	Aluminum	Bronze	6'8"-7'0"-7'2"	8'0"	10'0"
¼-20 x ¾" Phillips pan head self-drilling Tek screw	MP-13	MP-13	16	18	10
10-24 x ¾" Phillips flat head undercut self-drilling Tek screw	MP-12	MP-11	21	23	27
#10 x 1¼" Phillips flat head undercut sheet metal screw	MP-28	MP-29	21	23	27
#8 x ¾" Phillips flat head sheet metal screw	MP-8	MP-9	2	2	2

For hinge models HS203 & HM204

Screw type	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
¼-20 x ¾" Phillips pan head self-drilling Tek screw	MP-13	14	16	20
10-24 x ¾" Phillips flat head undercut self-drilling Tek screw	MP-12	21	23	27
#10 x 1¼" Phillips flat head undercut sheet metal screw	MP-28	21	23	27
Cover clip	MP-606	5	6	8
#8 x ¾" Phillips flat head sheet metal screw	MP-8	2	2	2

For hinge models HS303, HM304, & HG306

Screw type	Stainless Steel	6'8"-7'0"-7'2"	8'0"	10'0"
¼-20 x ¾" Phillips pan head self-drilling Tek screw	MP-13	14	16	20
#10 x 1¼" Phillips flat head undercut sheet metal screw	MP-32	21	23	27
10-24 x ¾" Phillips flat head undercut self-drilling Tek screw	MP-10	21	23	27
Cover clip	MP-606	5	6	8
#8 x ¾" Phillips flat head sheet metal screw	MP-8	2	2	2

Universal Screw Packs – Toilet Partition Hinges

For hinge models FM400			
Screw type	Stainless Steel	54"	57"
#10 x 1¼" Phillips flat head undercut zinc metal screw	MP-28	26	26
#10 x ¾" Phillips flat head undercut zinc self-drilling Tek screw	MP-12	26	26
Security option	Stainless Steel	54"	57"
#10 x 1¼" Torx flat head undercut stainless steel sheet metal screw	MP-54	26	26
10-24 x ½" Torx recess flat head undercut stainless steel machine screw	MP-52	26	26
For hinge models FS401, FS402			
Screw type	Stainless Steel	54"	57"
#14 x ¾" Torx button head sheet metal screw	MP-49	12	12
#8 x ¾" Phillips flat head self-drilling Tek screw	MP-8	4	4
Security option	Stainless Steel	54"	57"
#10-24 x 1½" one-way truss head shoulder bolt	MP-37	12	12
10-24 x ⅝" one-way truss head sleeve bolt machine screw	MP-38	12	12
#8 x ¾" Torx flat head self-drilling Tek screw	MP-61	4	4
For hinge models HG406, HG407			
Screw type	Stainless Steel	54"	57"
#10 x 1¼" Phillips flat head zinc sheet metal screw	MP-28	12	12
Security option	Stainless Steel	54"	57"
#10 x 1¼" Torx flat head stainless steel sheet metal screw	MP-54	12	12
Adjust-A-Screw™ option	Stainless Steel	54"	57"
10-32 x ¾" Phillips flat head undercut machine screw	MP-7	6	6
1⅜" Adjust-A-Screw™ with 10-32 internal thread	MP-25	6	6
For hinge models FM900			
Screw type	Stainless Steel	54"	57"
#10 x 1¼" Phillips flat head undercut stainless steel sheet metal screw	MP-32	26	26
#10 x ¾" Phillips flat head undercut self-drilling Tek screw	MP-10	26	26
Security option	Stainless Steel	54"	57"
#10 x 1¼" Torx flat head stainless steel sheet metal screw	MP-54	26	26
10-24 x 1½" Torxs flat head stainless steel undercut machine screw	MP-52	26	26

Universal Screw Packs – Toilet Partition Hinges

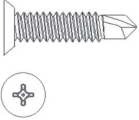
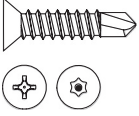
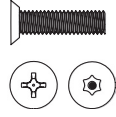
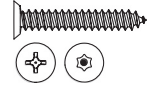
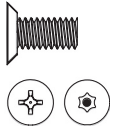
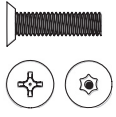
For hinge models FS901, FS902

Screw type	Stainless Steel	54"	57"
#14 × ¾" Torx button head sheet metal screw	MP-49	12	12
Cover clip	MP-606	6	6
#8 × ¾" Phillips flat head self-drilling Tek screw	MP-8	4	4
Security option	Stainless Steel	54"	57"
10-24 × 1½" One way truss head chrome shoulder bolt	MP-37	12	12
10-24 × ⅝" One way truss head chrome sleeve bolt	MP-38	12	12
#8 × ¾" Torx flat head self-drilling Tek screw	MP-61	4	4

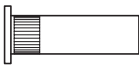
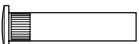
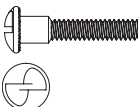
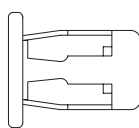
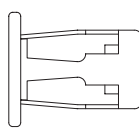
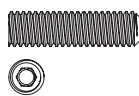
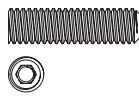
For hinge models FS910

Screw type	Stainless Steel	54"	57"
#10 × ¾" Phillips flat head undercut self-drilling Tek screw	MP-10	26	26
Security option	Stainless Steel	54"	57"
10-24 × 1½" one-way truss head shoulder bolt	MP-37	26	26
10-24 × ⅝" one-way truss head sleeve bolt	MP-38	26	26

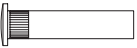
Fasteners

	Product Number	Description	Properties
		10 x 3/4" Phillips Flat Head Undercut Self-Drilling Screw	
	MP-10	Replaces MP-3 and MP-33 (Quantity 100)	410 Stainless Steel
	MP-11	Replaces MP-31 and MP-27 (Quantity 100)	Black Zinc
	MP-12	Replaces MP-30 and MP-26 (Quantity 100)	Zinc Plated
		#8 x 3/4" Flat Head Self Drilling Tek Screw	
	MP-8	For attaching 100, 200, and 300 series covers (Quantity 100)	Zinc Phillips
	MP-9	For attaching 100, 200, and 300 series covers (Quantity 100)	Bronze
	MP-61	For attaching 100, 200, and 300 series covers (Quantity 100)	Zinc Torx
		1/4-20 x 3/4" Flat Head Machine Screw	
	MP-16	For reinforcing pivots on metal (Quantity 100)	Zinc Phillips
	MP-63	For reinforcing pivots on metal (Quantity 100)	Zinc Torx
		#10 x 1 1/4" Flat Head Undercut Sheet Metal Screw	
	MP-28	For edge mounting to wood (Quantity 100)	Zinc Phillips
	MP-29	For edge mounting to wood (Quantity 100)	Bronze Phillips
	MP-32	For edge mounting to wood (Quantity 100)	Stainless Steel Phillips
	MP-54	For edge mounting to wood (Quantity 100)	Stainless Steel Torx
		12-24 x 3/4" Flat Head Undercut Machine Screw	
	MP-66	Used with MP-58/3500 series for edge mounting to metal (Quantity 100)	Stainless Steel Phillips
	MP-67	Used with MP-58/3500 series for edge mounting to metal (Quantity 100)	Stainless Steel Torx
		10-32 x 3/4" Flat Head Machine Screw	
	MP-7	Used with MP-25 Adjust-A-Screw (Quantity 100)	Stainless Steel Phillips
	MP-55	Used with MP-25 Adjust-A-Screw (Quantity 100)	Stainless Steel Torx

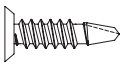
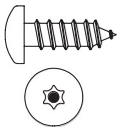
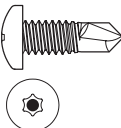
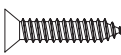
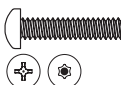
Fasteners

	Product Number	Description	Properties
	MP-24	1/4-20 x 1 1/8" Sleeve Bolt For surface mounting to wood (Quantity 100)	Aluminum
	MP-21	10-24 x 1 1/4" Sleeve Bolt For surface mounting to wood (Quantity 100)	Aluminum
	MP-34	For surface mounting to wood (Quantity 100)	Steel
	MP-38	10-24 x 5/8" One Way Truss Head Sleeve Bolt For surface mount toilet partition hinges Consult factory for pricing and availability	Chrome
	MP-37	10-24 x 1 1/8" One Way Truss Head Shoulder Bolt For surface mount toilet partition hinges Consult factory for pricing and availability	Chrome
	MP-19	6 SJN 10-24 Molly Jack Nut 3/8" hole (Quantity 100)	Zinc
	MP-20	18 SJN 1/4-20 Molly Jack Nut 7/16" hole (Quantity 100)	Zinc
	MP-25 MP-57	1 1/8" Adjust-A-Screw™ with 10-32 Internal Thread and Hex Head Adjustment Right Hand used with MP-7 screw (Quantity 100) Left Hand used with MP-7 screw (Quantity 100) Note: 5/16" pilot hole required for 3/8" - 16 tap	
	MP-58	1 1/8" Adjust-A-Screw™ with 12-24 Internal Thread and Hex Head Adjustment Right Hand used with MP-66 (Quantity 100)	

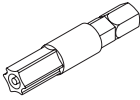
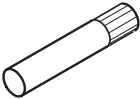
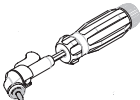
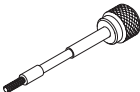
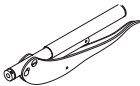
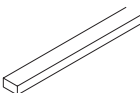
Fasteners

	Product Number	Description	Properties
		10-24 x 1/2" Flat Head Undercut Machine Screw	
	MP-52	For edge mounting to metal (Quantity 100)	Stainless Steel Torx
		10-24 x 3/4" Phillips Flat Head Undercut Machine Screw	
	MP-27	For edge mounting to metal (Quantity 100)	Bronze
		12-24 x 1/2" Flat Head Machine Screw	
	MP-35	For FM-3500 security hinge (Quantity 100)	Stainless Steel Phillips
	MP-39	For FM-3500 security hinge (Quantity 100)	Stainless Steel Torx
		12-16 x 1 1/4" Flat Head Masonry Screw	
	MP-60	(Quantity 100)	Zinc
		1/4-20 x 1 3/4" Sleeve Bolt	
	MP-22	For surface mounting to wood (Quantity 100))	Aluminum
	MP-23	For surface mounting to wood (Quantity 100)	Steel
	MP-23	For surface mounting to wood (Quantity 100)	Bronze

Fasteners

	Product Number	Description	Properties
	MP-53	#10 x 3/4" Phillips Flat Head Undercut Self-Drilling Screw For edge mounting to wood (Quantity 100)	Zinc
	MP-49	#14 x 3/4" T-27 Torx Button Head Sheet Metal Screw (Quantity 100)	Stainless
	MP-62	1/4-20 x 3/4" Pan Head Self-Drilling Screw For surface mounting to metal (Quantity 100)	Zinc Torx
	MP-18	#14 x 1 1/4" T-27 Phillips Flat Head Sheet Metal Screw For mounting reinforcing pivots to wood (Quantity 100)	Zinc
	MP-14 MP-65	1/4-20 x 1" Pan Head Machine Screw For surface mounting to metal (Quantity 100) For surface mounting to metal (Quantity 100)	Zinc Phillips Torx

Tools, Parts and Accessories

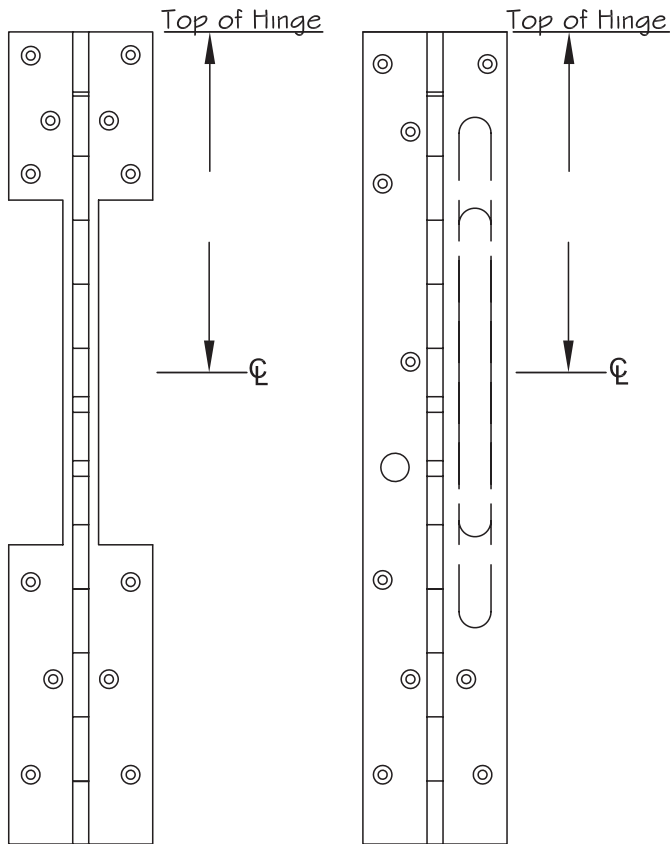
	Product Number	Description
		MT-T20, 27, & 15 Torx Driver Bit
	T-20	Used on MP-39, 52, 54 & 55
	T-27	Used on MP-49*
	T-15	Used on MP-61
		* The T-27 driver bit is also used for adjusting 400 & 900 series spring-loaded hinges
		MT-AD Hex Driver Bit
	MT-AD	Used for installing MP-25 Adjust-A-Screw™ fasteners 3/16" diameter (.188")
	MP-36	Knurl Pin Replacement pin for spring-loaded toilet partition hinges
	MT-806	Center Punch For centering screw holes when installing hinges and other countersunk hardware. Bevel tip assures correct alignment
	MTSP100	Right Angle Skewdriver Used for installing HG310 & HG311 Hinge/Guards
	MT-R-2 MT-R-3	Installer Rod For 6S-JN 10-24 nuts For 8S-JN 1/4-20 nuts For installing Molly Jack Nuts with MT1956 installer
	MT1956	Molly Jack Nut Installer Used for installing Molly Jack Nuts. Includes 1/4-20 installer rod
	MP-AB	Angle Board 2" x 2" Heavy-duty cardboard angles for shipping hinge cartons Length 90"
	MP-UBOX	Hinge Carton Please Specify: • Length • Dimension: 1" x 3" or 1-1/2" x 3"

To process order, please circle handing illustrated below.

Markar Architectural Products: Current Transfer Prep Information Form (CTP)

In order to assign an accurate ship date and begin production of your order, please provide us with the information requested. We appreciate your cooperation and time to assist us in providing you with the type of product that will meet our requirements.

ALL CTP LOCATIONS ARE REQUIRED FROM TOP OF DOOR TO CENTERLINE OF PREP



Company Name: _____
Contact Name: _____
P.O.#: _____
Job Name: _____
Phone Number: _____
Fax Number: _____

☐ **CTP (Power Transfer Model)**

- ☐ **Securitron CEPT**
☐ **Securitron EPT**
☐ **Securitron EPTL**
☐ **Securitron EPT-SC**
☐ **Von Duprin EPT-2 & EPT-10**
☐ **Precision**
☐ **Other (Template Needed)** _____

☐ **Mortise Prep In**

- ☐ **Frame Leaf**
☐ **Door Leaf**

Hinge Length: _____
RHR/LH: _____
LHR/RH: _____

Notes: _____

Order acknowledgement will be sent after all information requirements are met to determine a ship date

MEMPHIS, TN USA
phone: 800 824-3018
fax: 800 243-3656

4226 Transport Street
Ventura, CA 93003 USA

5535 Distribution Drive
Memphis, TN 38141 USA

information@markar.com
www.markar.com

Door Edge Guards And Astragals – For Wood And Plastic-Face Composite Doors

General Specifications

Material:

Edge guards are fabricated from 16 ga. (.063) galvanized steel and attached astragals are fabricated from 10 ga. (.138) galvanized steel.

Flat astragals (set no. 96TB) are fabricated from 1/8" HRPO edge bar stock

Finish:

Standard finish for edge guards and astragals are galvanized steel unless otherwise specified.

Mounting:

All edge guards and astragals are mounted with #10 x 1 1/4" sheet metal screws. Holes are located 3" from each end, 3" from each cut out and the remaining holes not to exceed more than 12" on center.

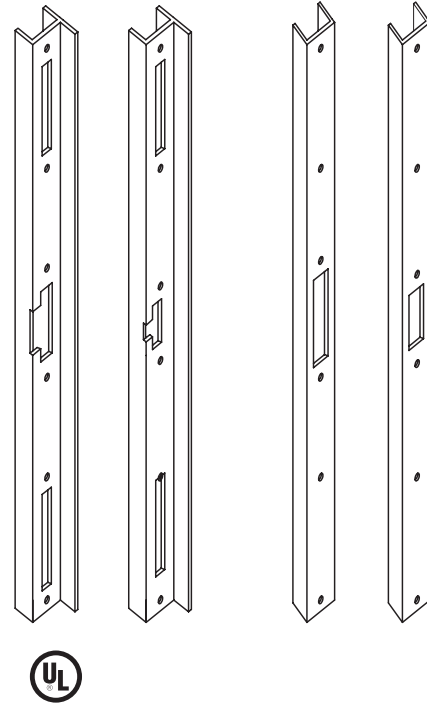
Sizes:

Standard edge guards and astragals are for 1 3/4" bevel (1/8" on 2") or 1 3/4" square edge 90-degree doors. Standard lengths are for 6'-8", 7'-0" and 8'-0" nominal size doors. Other lengths are available.

Hardware Locations:

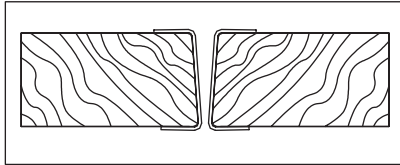
Determine hand of active and inactive door. Locate hardware cutouts from top of edge guard to top of each cutout or from top of edge guard to center line of each cutout. Specify one or both dimensions when ordering.

Edge guard and astragal sets are UL Listed for use on wood or plastic covered wood composite type fire doors rated up to 1 1/2 hrs. Also hollow metal, steel covered, composite type fire doors rated up to and including 3 hrs.

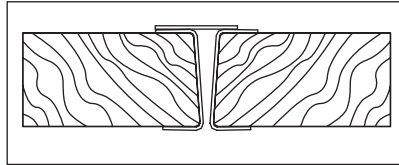


Edge Guards and Astragals

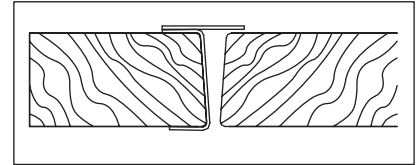
BEVEL EDGE



SET No. 87EE
EDGE GUARD INACTIVE
EDGE GUARD ACTIVE

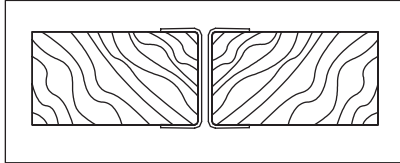


SET No. 87AE
ASTRAGAL INACTIVE
EDGE GUARD ACTIVE

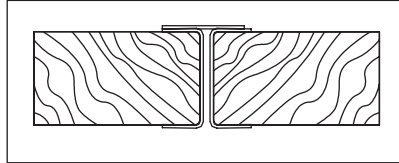


SET No. 87AO
ASTRAGAL INACTIVE
ONLY

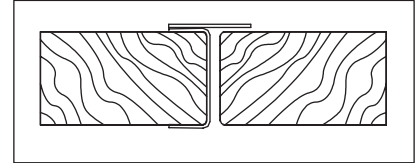
SQUARE EDGE



SET No. 90EE
EDGE GUARD INACTIVE
EDGE GUARD ACTIVE

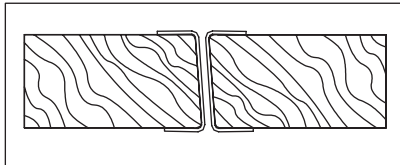


SET No. 90AE
ASTRAGAL INACTIVE
EDGE GUARD ACTIVE



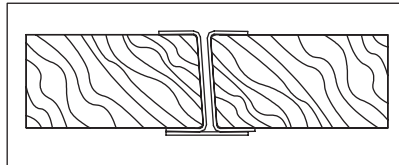
SET No. 90AO
ASTRAGAL INACTIVE ONLY

BEVEL EDGE - DOUBLE EGRESS

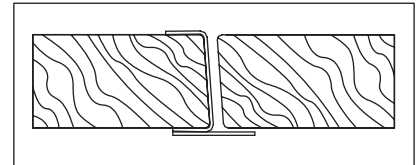


SET No. 93EE
EDGE GUARD BOTH
DOORS

DOUBLE EGRESS

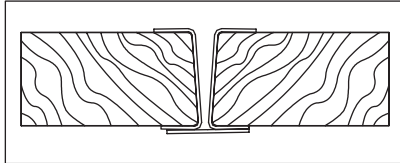


SET No. 93AE
EDGE GUARD ONE DOOR
ASTRAGAL ONE DOOR

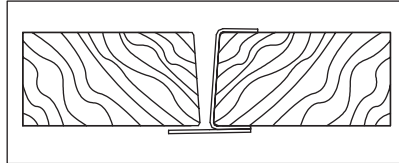


SET No. 93AO
ASTRAGAL ONE DOOR
ONLY

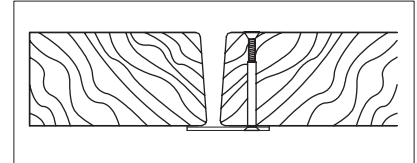
BEVEL EDGE



SET No. 95EA
EDGE GUARD INACTIVE
ASTRAGAL ACTIVE

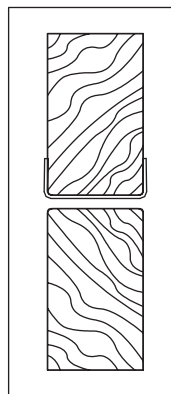


SET No. 95AO
ASTRAGAL ACTIVE ONLY

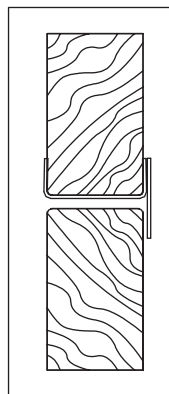


SET No. 96TB
FLAT ASTRAGAL
1/2" x 1 1/2" x GALVANNEALED STEEL
WITH 1/4-20 x 1 1/4" THRU BOLTS

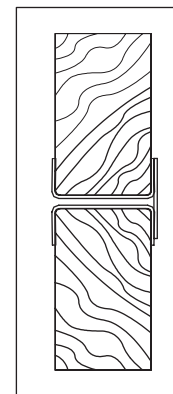
TRANSOM AND TOP OF DOOR EDGE GUARDS AND ASTRAGALS



SET No. 90ET
TRANSOM
EDGE GUARD



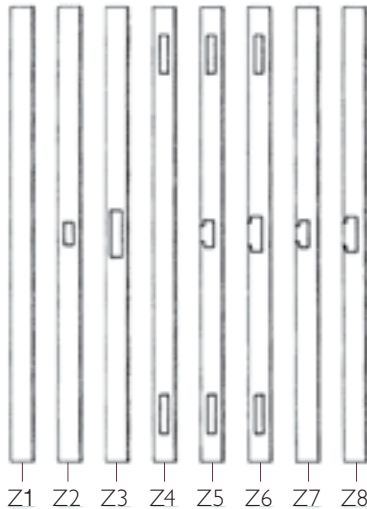
SET No. 90AT
TRANSOM
ASTRAGAL



SET No. 90AET
TRANSOM/DOOR
ASTRAGAL/EDGE

Z Astragals

For 1 $\frac{3}{4}$ " Wood and Hollow Metal Doors



Material:

Z Astragals are manufactured from 16 ga. (.063) galvanized steel. Holes are punched and countersunk to receive #10 x $\frac{1}{4}$ " Philips F.H.M.S

Finish:

Standard finish for edge guards and astragals are galvanized steel unless otherwise specified.

Mounting:

When ordering, give door mfg. name and we will locate hardware cutouts to match or give location from top of door to top of each cutout.

Specify square or bevel edge.

Specify if welded tabs are required.

Sizes:

Standard edge guards and astragals are for 1 $\frac{3}{4}$ " bevel ($\frac{1}{8}$ " on 2") or 1 $\frac{3}{4}$ " square edge 90 doors. Standard lengths are for 6'-8", 7'-0" and 8'-0" nominal size doors. Other lengths are available.

Hardware Locations:

Determine hand of active and inactive door. Locate hardware cut outs from top edge guard to top of each cut out or from top of edge guard to center line of each cut out. Specify one or both dimensions when ordering.

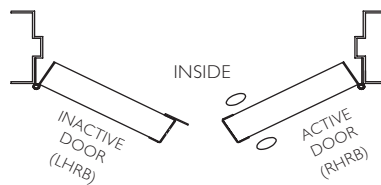
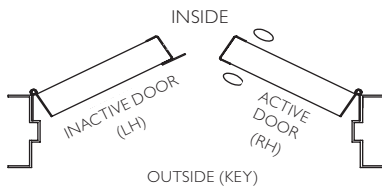
Edge guard and astragal sets are UL Listed for use on wood or plastic covered wood composite type fire doors rated up to 1 $\frac{1}{2}$ hrs. Also hollow metal, steel covered, composite type fire doors rated up to and including 3 hrs.

To Order Indicate The Following:

- Astragal Number
- Hand
- Active/Inactive
- Door Mfg. Name (Or Locations)
- Nominal Door Height

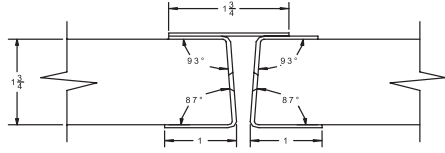
Z1	Blank
Z2	161 Latch 1 $\frac{1}{8}$ " x 2 $\frac{1}{4}$ "
Z3	86 Mortise Lock 1 $\frac{1}{4}$ " x 8"
Z4	Flush Bolts (2) 1" x 6 $\frac{3}{4}$ "
Z5	Flush Bolts (2) 161 small strike 1 x 6 $\frac{3}{4}$ " & 1 $\frac{1}{8}$ " x 2 $\frac{3}{4}$ "
Z6	Flush Bolts (2) ASA strike 1 x 6 $\frac{3}{4}$ " & 1 $\frac{1}{4}$ " x 4 $\frac{7}{8}$ "
Z7	161 Small Strike 1 $\frac{1}{8}$ " x 2 $\frac{3}{4}$ "
Z8	ASA Strike 1 $\frac{1}{4}$ " x 4 $\frac{7}{8}$ "

Handing Information



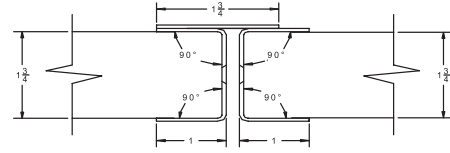
Edge Guards for 1 $\frac{3}{4}$ " Doors

Edge guards and astragals are punched and countersunk to receive #10 x $\frac{3}{4}$ " F.H. Phillips Screws (painted to match each set)



Edge guard and astragals for bevel edge doors

Set No's 87EE – 87AE – 87AO –
93EE – 93AE – 93AO 95EA – 95AO

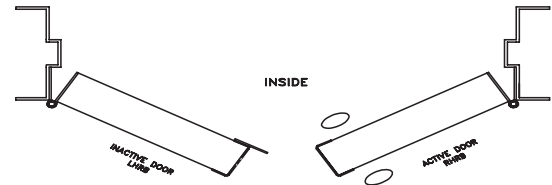
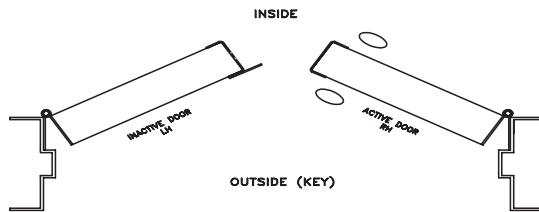


Edge guard and astragals for square edge doors

Set No's 90EE – 90AE – 90AO

Handing Information:

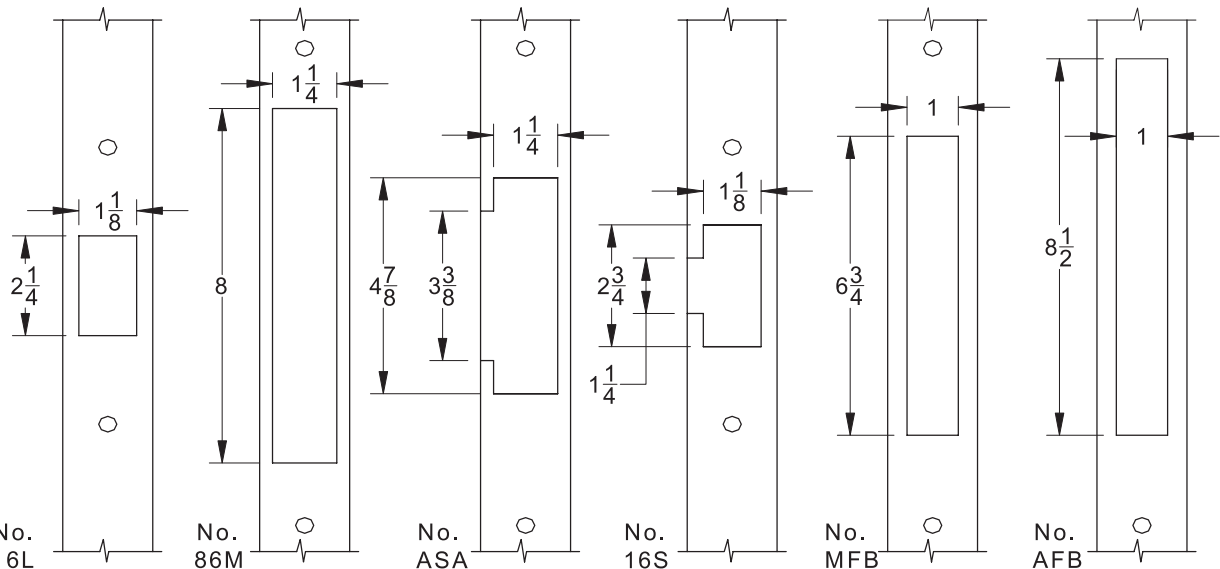
Determine hand and swing for double doors



Hardware cutout patterns for edge guards and astragals

Wood and plastic composite fire doors

Hardware cutouts are $\frac{1}{32}$ " larger than shown to allow for proper fit



161 LATCH BOLT
CUT OUT

86 MORTISE LOCK
CUT OUT

ASA STRIKE
CUT OUT

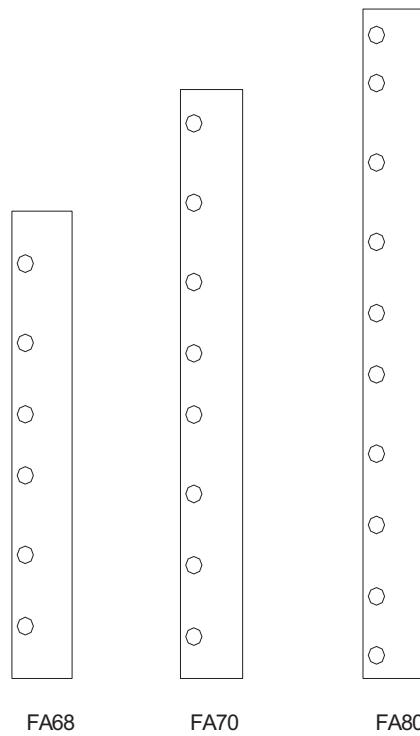
161 STRIKE
CUT OUT

MANUAL FLUSH BOLT
CUT OUT (2-Reg.)

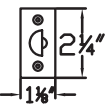
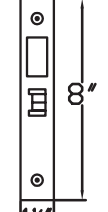
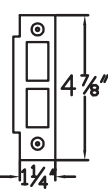
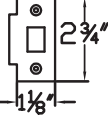
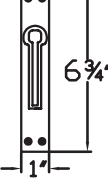
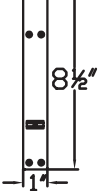
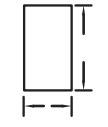
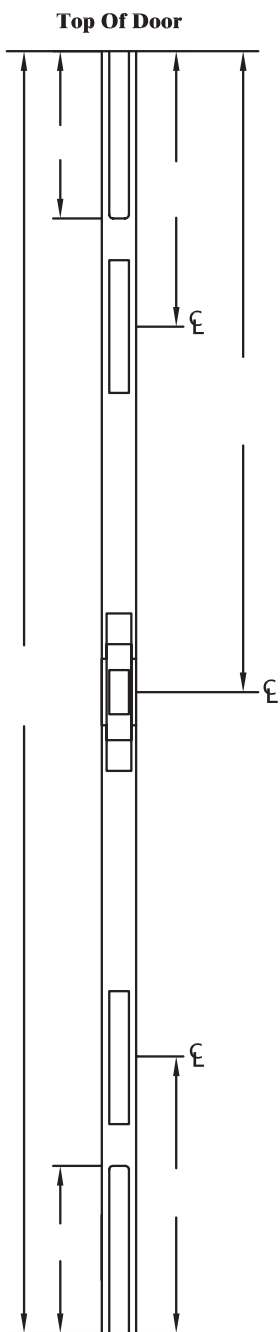
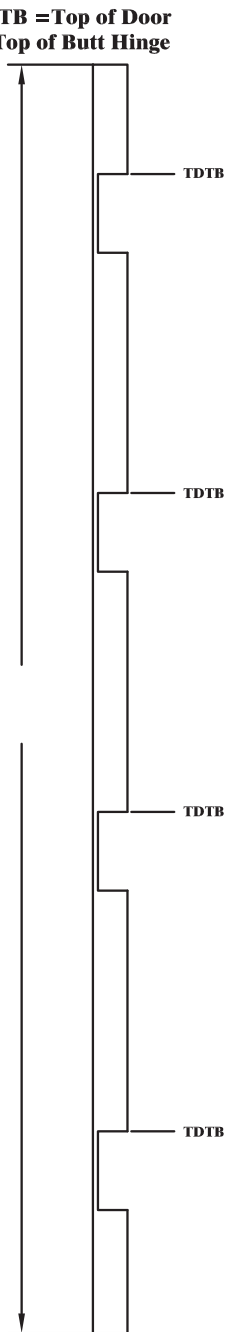
AUTOMATIC FLUSH BOLT
CUT OUT (2-Reg.)

Flat Astragals

- For 6'8", 7'0", and 8'0" doors
- Holes are countersunk and equally spaced
- $\frac{1}{8}$ " x $1\frac{3}{4}$ " galvanized steel
- 1-pkg. # 6 x 1" F.H.S.M. screws
- Finish –galvanized steel



EDGE GUARD ORDER FORM

☐ 161 Latch Bolt  ☐ 86 Mortise Lock  ☐ ASA Strike  ☐ 161 Strike  ☐ Manual Flush Bolt/ Auto Flush Bolt (Hollow Metal Door)  ☐ Auto Flush Bolt (Wood Door)  ☐ Custom (Please specify Dimensions)  ☐ Fire Bolt (Specify Hole Size) _____	Top Of Door 	☐ For use on 1 3/4" door ☐ For use on 1 7/8" door ☐ For use on _____" door ☐ EDGE GUARD ☐ ASTRAGAL ☐ EG-C ☐ Z ASTRAGAL QUANTITY: _____ <u>DOOR EDGE</u> ☐ SQUARE ☐ BEVEL <u>HANDING</u> ☐ LH/ RHR ACTIVE ☐ RH/LHR ACTIVE ☐ LH/RHR INACTIVE ☐ RH/LHR INACTIVE <u>Butt Hinge Size</u> ☐ 4 1/2" x 4 1/2" ☐ 5" x 5" ☐ Custom <u>DOOR TAG INFO</u> _____ _____ _____ _____ _____ <u>Special Instructions</u> _____ _____ _____ _____ _____	TDTB = Top of Door to Top of Butt Hinge 
Customer: _____		I, the undersigned, approve the design and dimensions as shown on this print, and authorize the fabrication of these Edge Guards as indicated.	
P.O. No. _____		Signed: _____	
*DRAWING SUBMITTAL AND FACTORY APPROVAL REQUIRED PRIOR TO ORDER ENTRY			

MEMPHIS, TN USA
 phone: 800 824-3018
 fax: 800 243-3656

4226 Transport Street
 Ventura, CA 93003 USA

5535 Distribution Drive
 Memphis, TN 38141 USA
 information@markar.com
 www.markar.com

Full Surface Reinforcing Pivots

This full-surface reinforcing pivot adds years of life to openings where the hinges or hinge reinforcements have failed. An economical way to solve door sag problems, reinforcing pivots take the load off the top hinge and transfer it to screws that will not pull out.

Material:

Heavy Duty $\frac{3}{16}$ " (.187) Cold-Rolled Steel

Finish:

Zinc Plated (US2G)

Mounting:

8 ea. $\frac{1}{4}$ -20 x $\frac{3}{4}$ " Phillips flat head machine screws

8 ea. #14 x $1\frac{1}{4}$ " Phillips flat head sheet metal screws

2 ea. $\frac{1}{4}$ -20 x $1\frac{3}{4}$ " Sleeve bolts

Capacity:

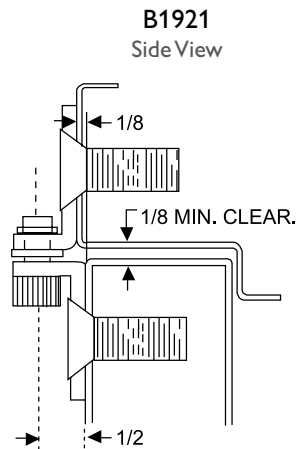
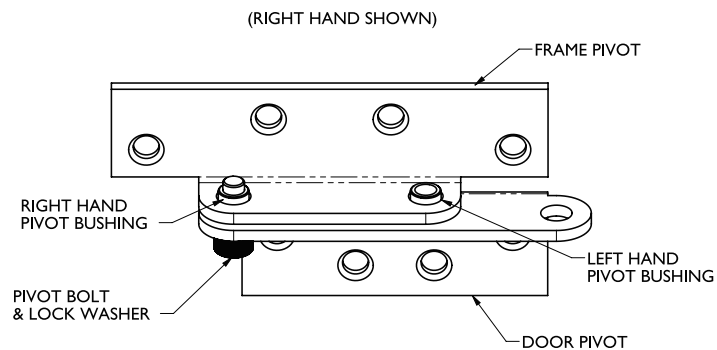
Supports Weights up to 300 lbs.

Hole Pattern:

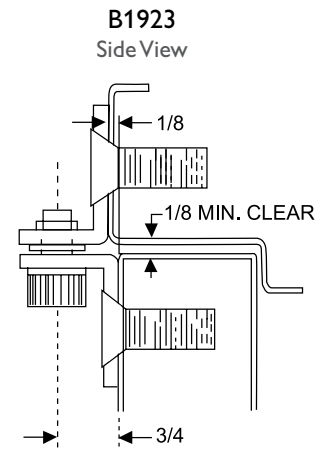
Symmetrically

Handing:

Non-handed

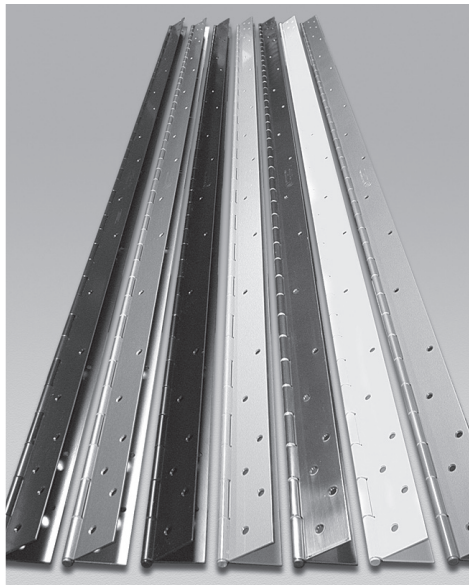


Matches 4" hinge barrel centerline



Matches 4 1/2" hinge barrel centerline

B1921	The B1921 pivot is designed with a $\frac{1}{2}$ " offset to match the pivot point of a 4" wide butt hinge.
B1923	The B1923 pivot is designed with a $\frac{3}{4}$ " offset to match the pivot point of a 4 1/2" wide butt hinge.



MEMPHIS, TN USA
phone: 800 824-3018
fax: 800 243-3656

VENTURA, CA USA
phone: 800 283-9988
fax: 800 283-4050

VANCOUVER, BC CANADA
phone: 877 535-7888
fax: 877 535-7444

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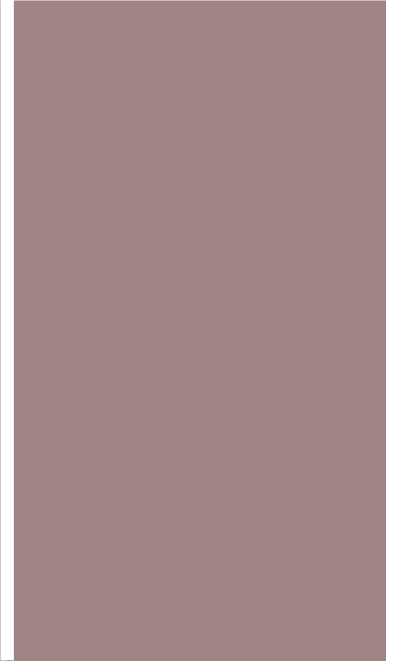
ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying
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4226 Transport Street
Ventura, CA 93003 USA

5535 Distribution Drive
Memphis, TN 38141 USA

information@markar.com
www.markar.com

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Why Continuous Hinges?



Hinge failure most commonly begins when doors are opened beyond stop device limits. The resulting kickback shock to the hinges can surpass 1000 lbs. of force. Subsequent racking eventually loosens screws, distorts hinge leaves, pulls open knuckles, damages bearings or creates other serious damage to standard butt hinges as well as the door frame itself.

Markar's Continuous Hinges provide the answer by distributing shock forces evenly, significantly reducing wear and tear to the frame and door.

Other important benefits include:

- Enhanced security – prevents insertion of objects between the door and frame
- Easy alignment of electrical transfers and monitoring switches
- Reduced binding
- Less force required to open than butt hinges

Markar manufactures pin and barrel, as well as spring-loaded toilet partition pin and barrel models. There are many different models to choose from with a variety of configurations, options and materials.



The Markar Difference

FIRE RATED CONTINUOUS HINGES

Markar stainless steel (3500 Series and 300 Series) and carbon steel (200 Series) hinges are available with two labeling options: Underwriters Laboratories Inc. (standard) and Warnock Hersey Int'l. (available upon request)

- 20 minutes – wood doors
- 90 minutes – hollow metal and composite core wood fire doors
- 3 hours – hollow metal doors

MAXIMUM DOOR OPENING

Single Doors: 4' 0" x 10' 0"

Pair of Doors: 8' 0" x 10' 0"

In accordance with Uniform Building Code Standard 7-2 "Fire Test Door Assemblies" and Standard UL10C for positive pressure.

MEDICAL BEARINGS

Medical Bearings are standard on the 3500, 300, 200, and 100 Series pin and barrel hinges. They provide permanently lubricated hinges with no metal to metal contact, improving the life and overall function of the hinge.

UNIQUE ADJUST-A-SCREW™ FASTENER

Optional Adjust-A-Screw™ fasteners can be added to most hinge guard models to permit up to 3/8" width adjustment. Full door length adjustment allow doors to be squared accurately and easily in new installations and existing frames can be used in retrofits. Maintenance staff can make future adjustments to the door by repositioning the Adjust-A-Screw™ fasteners.

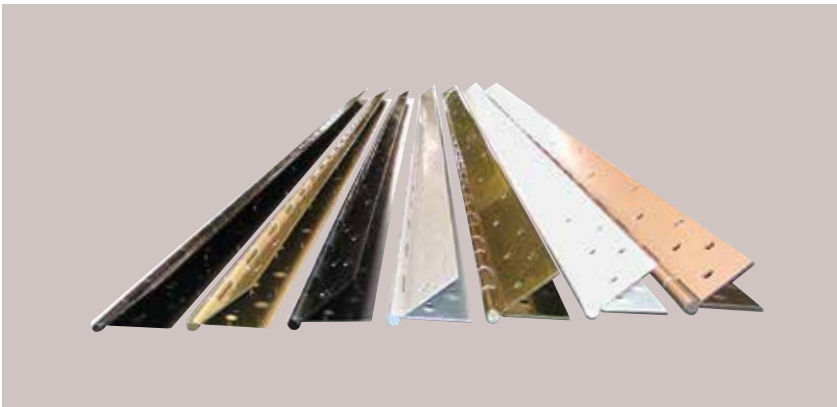
HINGE FINISHES:

- Standard powder coat finishes
- Over 84 custom powder coat finishes available. RAL colors available
- Special finishes include polished aluminum and polished stainless
- Special anodized finishes include gold, light bronze, medium bronze, and black

HINGE MODIFICATIONS:

- Special length (Spliced hinge)
- Hospital tip
- Dutch door prep
- Wide throw
- Blank
- Welded end pins
- Plug weld
- Automatic Door Bottom Cut
- Raised barrel (swaged)
- Standard edge guard cut-outs
- Security studs
- Sheared leaf
- Custom hole pattern or design
- Lead lined cover
- ElectroLynx® Current Transfer
- Electrical Transfer Access Prep
- Security Fasteners (Torx)
- Current Transfer Prep
- Electric Power Transfer Units
- Adjustable Monitoring Switch

To learn more about Hinge Modifications see page 11 or the full line catalog.



Pin & Barrel Stainless Steel Security Hinges



The 3500 Series hinges are used for high-traffic, high-abuse doors suited for correctional facilities and other high-security locations. Examples include prison doors, gates, extremely tall doors and extra heavy doors.

STANDARD FEATURES:

- 3/16" diameter stainless steel rod
- Life-long medical bearings
- Hospital tips
- Heavy-duty 12 gauge stainless steel

MODELS AVAILABLE:

- Edge mount
- Full surface
- Full surface / 1/8" inset
- Hinge guard

FIRE RATING:

- Classified in accordance with Uniform Building Code Standard 7-2 for positive pressure
- 20 minutes – wood doors
- 90 minutes – hollow metal and composite core wood fire doors
- 3 hours – hollow metal doors

CERTIFICATIONS:

As part of the integrated system, meets Federal Emergency Management Agency (FEMA) 320 and 361 and ICC 500 requirements, as certified by Underwriters Laboratory. Consult factory for system requirements.

ANSI/BHMA A156.26 Grade 1



Pin & Barrel Stainless Steel Continuous Hinges

The 300 Series is manufactured from heavy-duty 14 gauge stainless steel and are well suited for high-traffic, high-abuse doors. These hinges save on special door and frame preparation charges and makes the installer's job easier. A wide variety of configurations are available, including models with optional Adjust-A-Screw™ fasteners. Edge guards with Adjust-A-Screw™ fasteners allow even more flexibility in retro-fits and new installations.

STANDARD FEATURES:

- 3/16" diameter stainless steel rod
- Life-long medical bearings
- Heavy-duty 14 gauge stainless steel

MODELS AVAILABLE:

- Edge mount
- Full surface / flush mount
- Full surface / 1/8" inset
- Half surface
- Half mortise
- Hinge guard
- Edge guard
- Full surface / swing clear
- Custom hinges available

FIRE RATING:

- 20 minutes – wood doors
- 90 minutes – hollow metal and composite core wood fire doors
- 3 hours – hollow metal doors

CERTIFICATIONS:

As part of the integrated system, meets Federal Emergency Management Agency (FEMA) 320 and 361 and ICC 500 requirements, as certified by Underwriters Laboratory. Consult factory for system requirements.

ANSI/BHMA A156.26 Grade 1



Pin & Barrel Carbon Steel Continuous Hinges



The 200 Series hinge is used on many of today's high-traffic, high-abuse interior doors. It can be used on both fire-labeled and non-labeled openings. Zinc plating is standard on all 200 Series hinges.

STANDARD FEATURES:

- 3/16" diameter stainless steel rod
- Long-life medical bearings
- Heavy-duty 14 gauge 1012 carbon steel
- Zinc Plated

MODELS AVAILABLE:

- Edge mount
- Full surface / 1/8" inset
- Full surface / flush mount
- Half surface

FIRE RATING:

- Classified in accordance with Uniform Building Code Standard 7-2 for positive pressure
- 20 minutes – wood doors
- 90 minutes – hollow metal and composite core wood fire doors
- 3 hours – hollow metal doors

CERTIFICATIONS:

As part of the integrated system, meets Federal Emergency Management Agency (FEMA) 320 and 361 and ICC 500 requirements, as certified by Underwriters Laboratory. Consult factory for system requirements.

ANSI/BHMA A156.26 Grade 1



Pin & Barrel Aluminum Continuous Hinges

The 100 Series hinge is extruded using 6063-T6 aluminum alloy, giving it exceptional strength and durability.

STANDARD FEATURES:

- 3/16" diameter stainless steel rod
- Long-life medical bearings
- Extruded aluminum 6063-T6 alloy

MODELS AVAILABLE:

- Edge mount
- Full surface / 1/8" inset
- Full surface / flush mount
- Half surface
- Edge guard
- Hinge guard

CERTIFICATIONS:

ANSI/BHMA A156.26 Grade 2



Aluminum Pin & Barrel Toilet Partition Hinges



Markar's 400 Series aluminum toilet partition hinge distributes stress along the entire length of the door and eliminates the gap or sightline at the hinge edge.

STANDARD FEATURES:

- Spring-loaded barrel type hinge
- Constructed of extruded aluminum
- Torx adjusting screw – adjust door tension for out-swinging ADA compliance
- Non-handed
- Closes doors up to 80 lbs.
- Split nylon bearings
- Available 24" - 72"

MODELS AVAILABLE:

- Full surface



Stainless Steel Pin & Barrel Toilet Partition Hinges

Ideal for damp or corrosive environments, Markar's stainless toilet partition hinge adds years of life to your high-quality partitions.

900 SERIES STANDARD FEATURES:

- Spring-loaded barrel type hinge
- 14 gauge 304 stainless steel
- Torx adjusting screw – adjust door tension for out-swinging ADA compliance
- Non-handed
- Closes doors up to 80 lbs.
- Available 24" - 72"

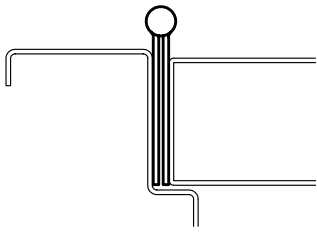
MODELS AVAILABLE:

- Flush mount
- Surface Mount

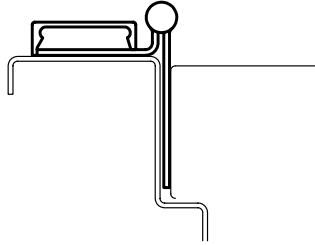


Pin & Barrel

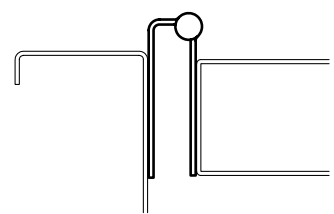
Edge Mount



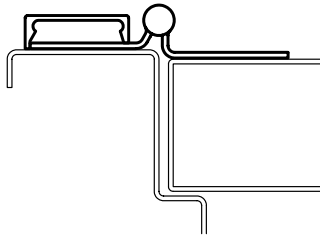
Half Mortise



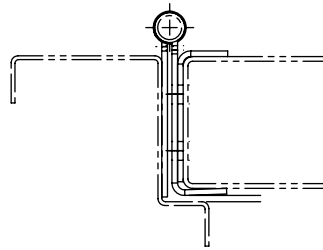
Edge Mount Safety Hinge



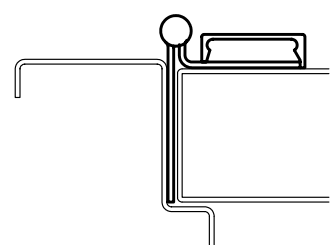
Full Surface 1/8" inset



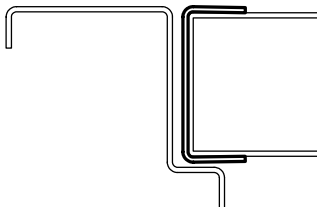
Hinge Guard



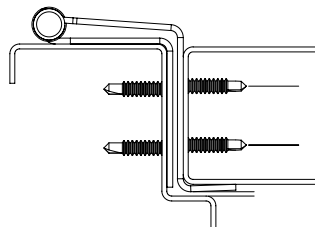
Half Surface



Edge Guard

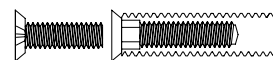


Swing Clear Hinge Guard



Other Available Styles:

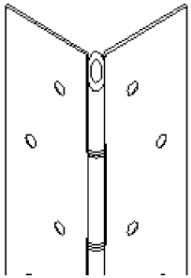
- Full Surface Swing Clear
- Full Surface 3/4" Offset
- Swing Clear Hinge Guard
- Edge Mount Hinge Guard
- Spring Loaded
- Inset Spring Loaded
- Flush Spring Loaded



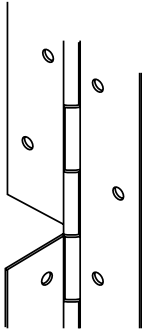
Adjust-A-Screw™ Fasteners are optional on certain hinge guard models, and permit up to 3/8" door width adjustment within the channel of the hinge. An adjustable lock-edge fastening system allows an additional 3/8" total width adjustment for stainless steel edge guards and a 1/8" total width adjustment for aluminum edge guards.

Hinge Modifications

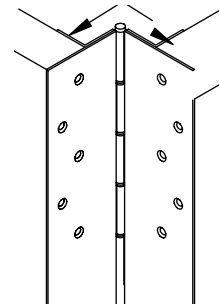
Hospital Tip



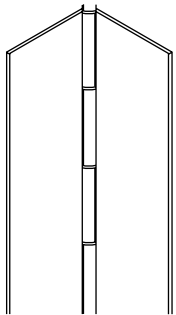
Dutch Door Prep



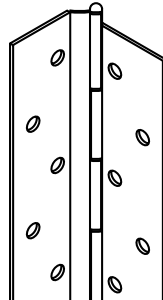
Wide Throw



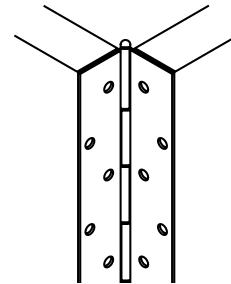
Blank



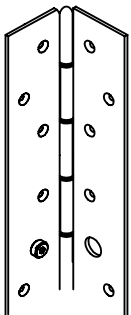
Raised Barrel (Swaged)



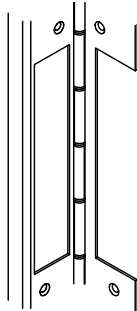
Sheared Leaf



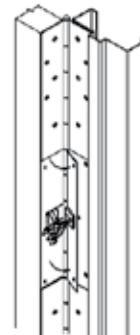
Security Studs



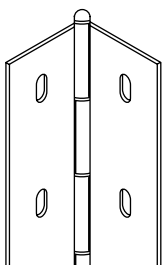
Current Transfer Prep



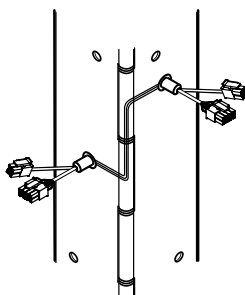
Electrical Transfer Access Prep



Custom Hole Pattern



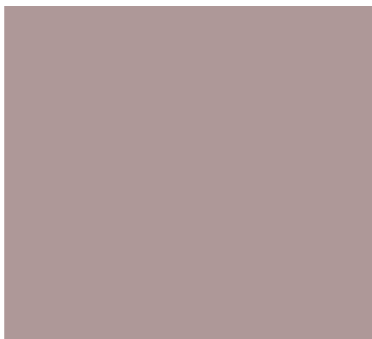
ElectroLynx® Current Transfer



Hardwiring Made Easy™



As part of their promise to provide innovative, fast and effective high security solutions to their customers, certain ASSA ABLOY Group brands offer ElectroLynx®, a universal quick-connect system that simplifies the electrification of the door opening. ElectroLynx® is a registered trademark of ASSA ABLOY Inc.



MEMPHIS, TN USA
P.O. Box 18966
Memphis, TN 38181
phone: 800 824-3018
fax: 800 243-3656

VENTURA, CA USA
P.O. Box 3780
Ventura, CA 93006
phone: 800 283-9988
fax: 800 283-4050

VANCOUVER, BC CANADA
103-2480 Mt. Lehman Road
Abbotsford, BC V2T 6W3
phone: 877 535-7888
fax: 877 535-7444

TORONTO, ON CANADA
160 Four Valley Dr.
Vaughan, ON L4K 4T9
phone: 877 535-7888
fax: 877 535-7444

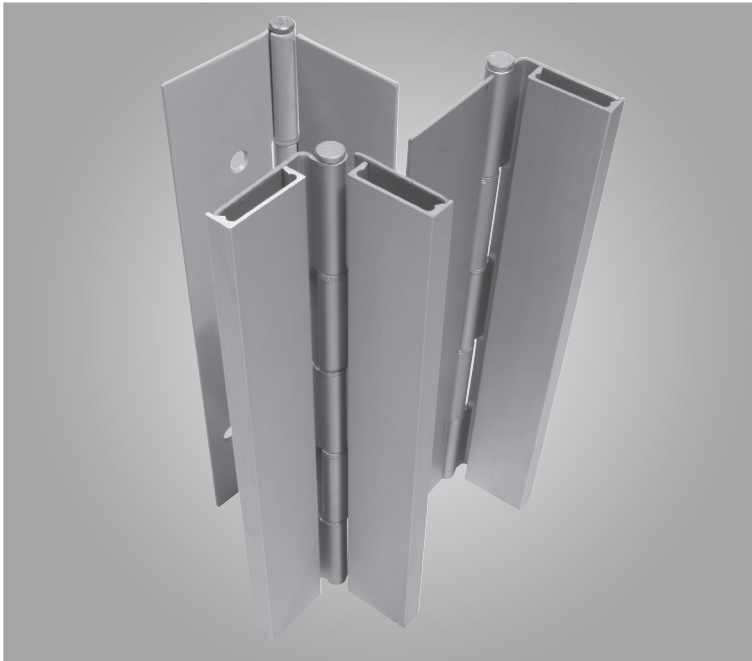
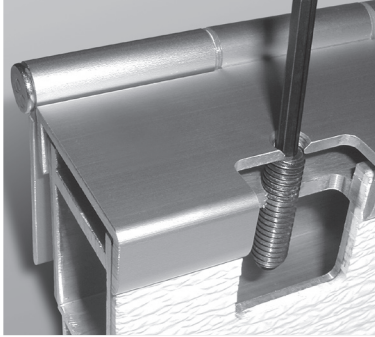


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information@markar.com
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Door Clearance Guide

Formulas for Under-sizing Doors:
Adjustable/Non-Adjustable Hinges
and Hinge/Edge Guard Applications

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Proper operation and performance of a door opening depends upon the appropriate door size relative to the frame dimension. Use this Door Clearance Guide to calculate the correct door size needed for a particular application. Start by locating the hinge series and model number; then select non-adjustable or adjustable application, and select single door or pair of doors to attain the proper door clearance.

Table of Contents

Formulas for Under-sizing Doors	3
300 Series Pin & Barrel Stainless Steel Continuous Hinges	4
300 Series Stainless Steel Continuous Edge Guard	5
200 Series Pin & Barrel Carbon Steel Continuous Hinges	6
100 Series Pin & Barrel Aluminum Continuous Hinges	7
100 Series Aluminum Continuous Edge Guard	8
3500 Series Pin & Barrel Stainless Steel Security Hinges	9
400 Series Aluminum Pin & Barrel Toilet Partition Hinges	10
900 Series Aluminum Pin & Barrel Toilet Partition Hinges	10
Combination Clearances for Hinge & Edge Guard Applications	11

Under-sizing Required For All Door Applications:

Markar's Hinge Side Clearance.....Dimension Specific Per Model
Lock side clearance.....1/8" Per N.F.P.A. (For single as well as between a pair of doors)
Allowance for frame irregularities.....1/16" (Optional)

The two formulas below are based on a standard *Non-Adjustable Application*

Example for Standard Single Door:

MODEL: (HG305).....5/16" Markar's Hinge Side Clearance
1/8" Lock-side Clearance
+1/16" Frame Irregularity (Optional)
1/2" (As shown in 300 Series Standard Non-Adjustable Chart)

Example for Standard Pair of Doors:

MODEL: (HG305).....5/16" Markar's Hinge Side Clearance (Door 1)
5/16" Markar's Hinge Side Clearance (Door 2)
1/8" Lock-side Clearance (Between Pair of Doors)
+1/16" Frame Irregularity (Optional)
13/16" (As shown in 300 Series Standard Non-Adjustable Chart)

For adjustable models used in an *Adjustable Application*, an additional 1/8" of clearance per door is required as shown in the two formulas below

Example for Standard Single Door:

MODEL: (HG305).....5/16" Markar's Hinge Side Clearance
1/8" Lock-side Clearance
1/16" Frame Irregularity (Optional)
+1/8" Additional Adjustment Clearance
5/8" (As shown in 300 Series Adjustable Chart)

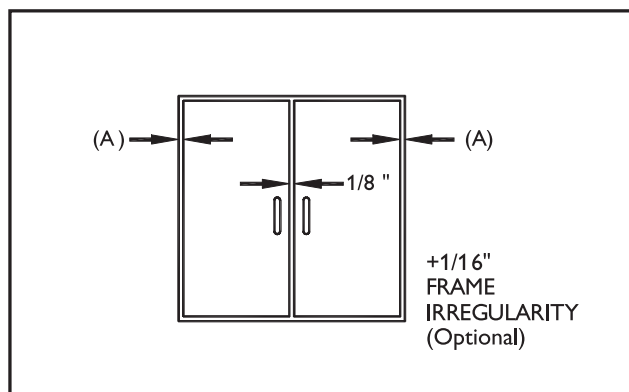
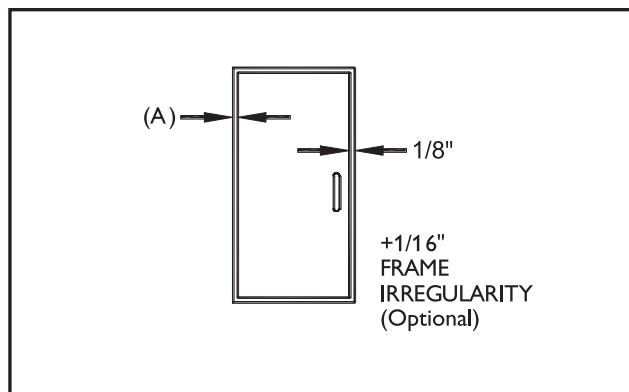
Example for Standard Pair of Doors:

MODEL: (HG305).....5/16" Markar's Hinge Side Clearance (Door 1)
5/16" Markar's Hinge Side Clearance (Door 2)
1/8" Lock-side Clearance (Between Pair of Doors)
1/16" Frame Irregularity (Optional)
1/8" Additional Adjustment Clearance (Door 1)
+1/8" Additional Adjustment Clearance (Door 2)
1-1/16" (As shown in 300 Series Adjustable Chart)

Standard “Non-Adjustable” application

MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
FM300	1/4	7/16	11/16
*FS301	1/8	5/16	7/16
*FS302	1/8	5/16	7/16
*HS303	1/8	5/16	7/16
*HM304	1/8	5/16	7/16
HG305	5/16	1/2	13/16
*HG306	1/8	5/16	7/16
*FS/SC309	1/8	5/16	7/16
HG310	1/4	7/16	11/16
*HG311	1/8	5/16	7/16
HG315	1/4	7/16	11/16
*FS321	1/8	5/16	7/16
HG322	5/16	1/2	13/16
HG323	5/16	1/2	13/16
HG326	5/16	1/2	13/16
FM327	1-1/16	7/8	1-9/16
HG329	1/4	7/16	11/16

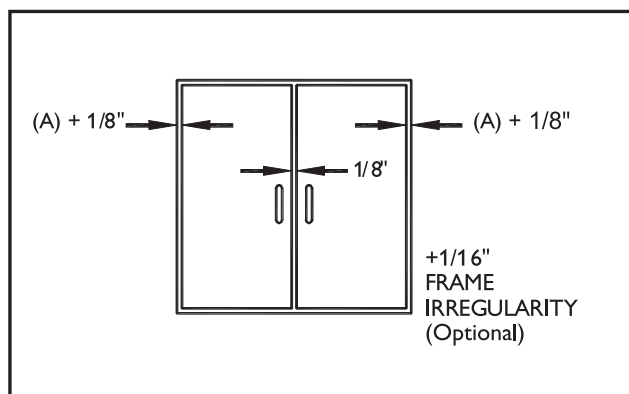
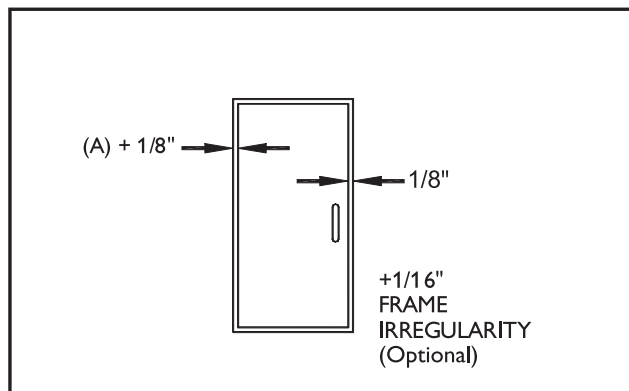
Models with * will work with Industry Standard Clearances.



“Adjustable” application

MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
HG305	5/16	5/8	1-1/16
HG310	1/4	9/16	15/16
HG322	5/16	5/8	1-1/16
HG326	5/16	5/8	1-1/16

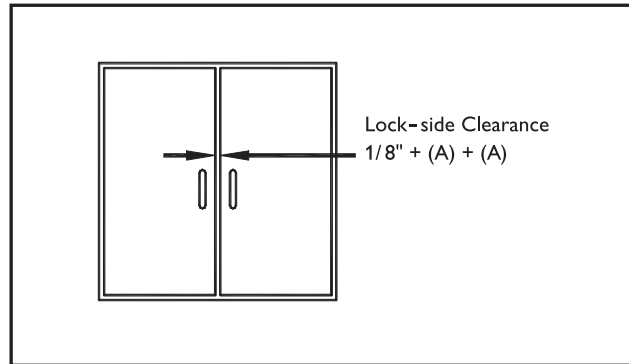
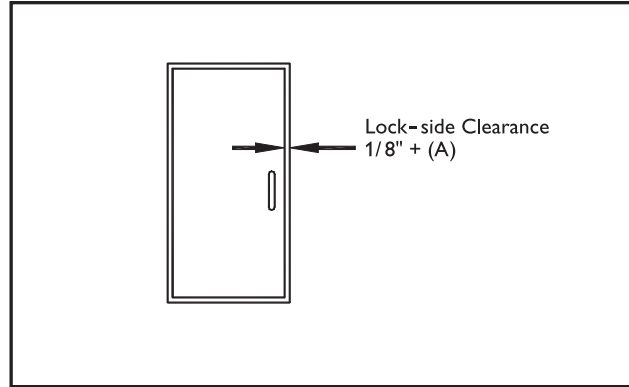
Proper door reinforcement is required for adjustable feature.



Standard “Non-Adjustable” application

MODEL	Lock-side Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
EG308	1/16	3/16	1/4
EGC308	1/16	3/16	1/4
EGT308	1/16	—	1/4

In a stand-alone application, where the EGT308 is used on a pair of doors while the opposite door contains no edge guard, the **total under-sizing for the pair of doors would be 3/16"**.

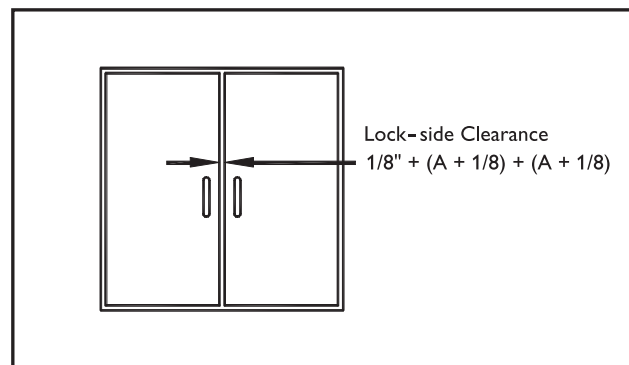
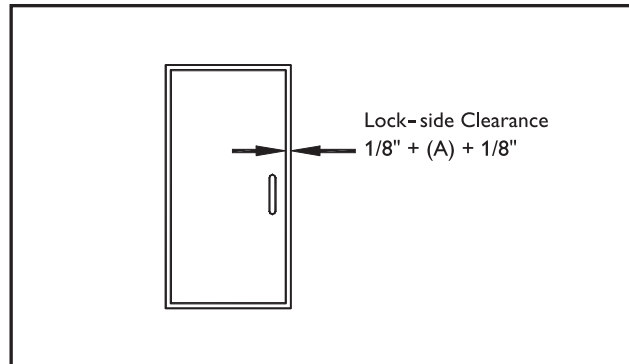


“Adjustable” application

MODEL	Lock-side Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
EG308	1/16	5/16	1/2
EGT308	1/16	—	1/2
		—	w/ EG308

In a stand-alone application, where the EGT308 is used on a pair of doors while the opposite door contains no edge guard, the **total under-sizing for the pair of doors would be 5/16"**.

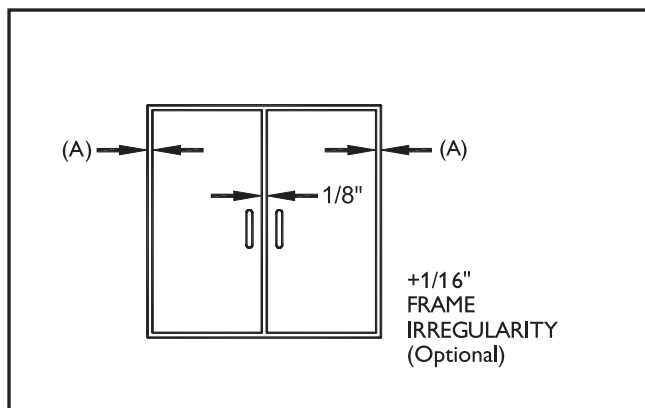
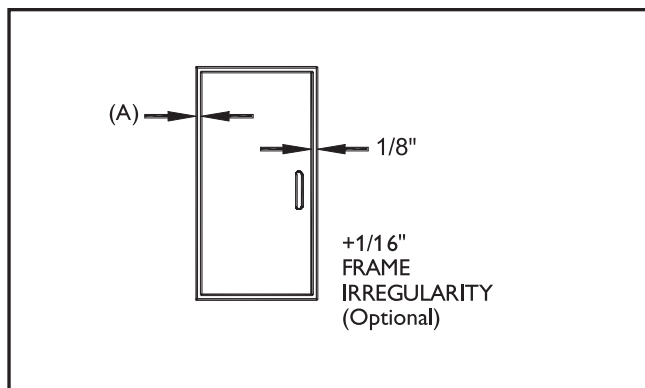
Proper door reinforcement is required for adjustable feature.



Standard “Non-Adjustable” application

MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
FM200	1/4	7/16	11/16
*FS201	1/8	5/16	7/16
*FS202	1/8	5/16	7/16
*HS203	1/8	5/16	7/16

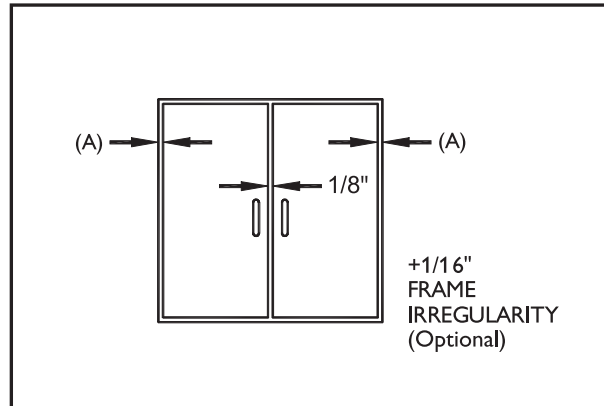
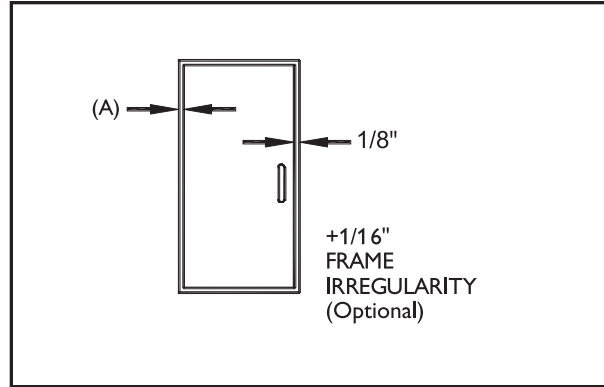
Models with * will work with Industry Standard Clearances.



Standard “Non-Adjustable” application

MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
FM100	3/8	9/16	15/16
FM100 (bev.)	7/16	5/8	1-1/16
*FS101	1/8	5/16	7/16
*FS102	1/8	5/16	7/16
HS103	3/16	3/8	9/16
HM104	3/16	3/8	9/16
HG105	3/8	9/16	15/16

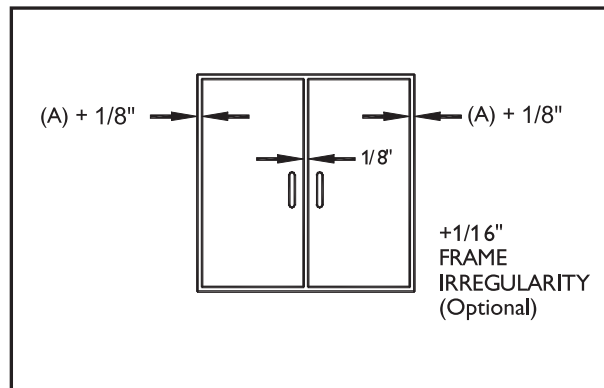
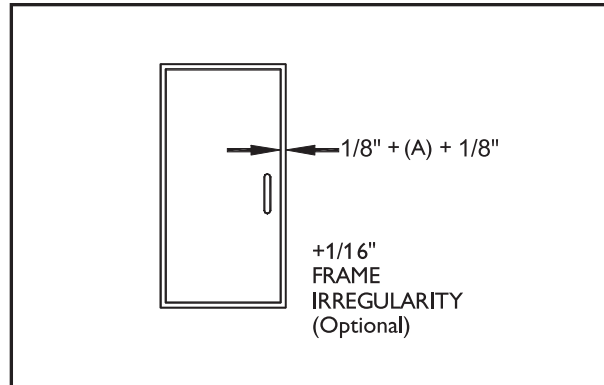
Models with * will work with Industry Standard Clearances.



“Adjustable” application

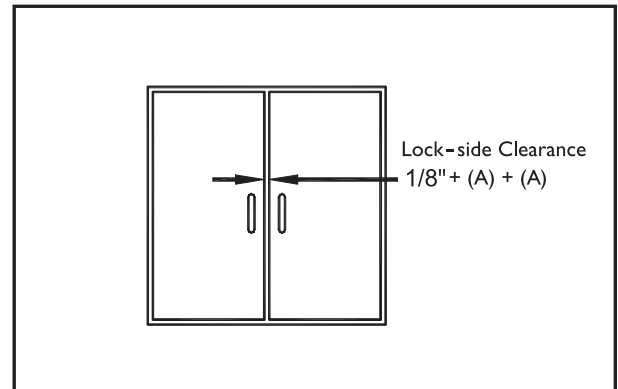
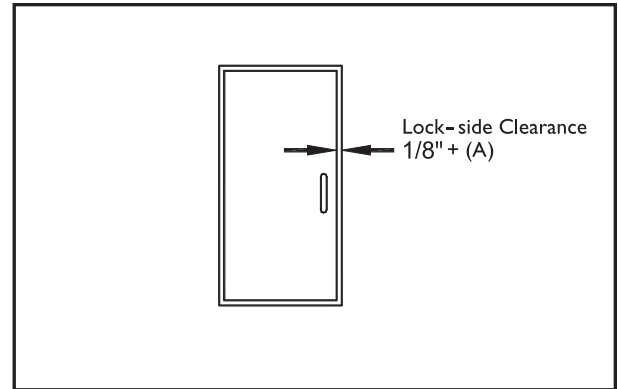
MODEL	Edge Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
HG105	3/8	11/16	1-3/16

Proper door reinforcement is required for adjustable feature.



Standard “Non-Adjustable” application

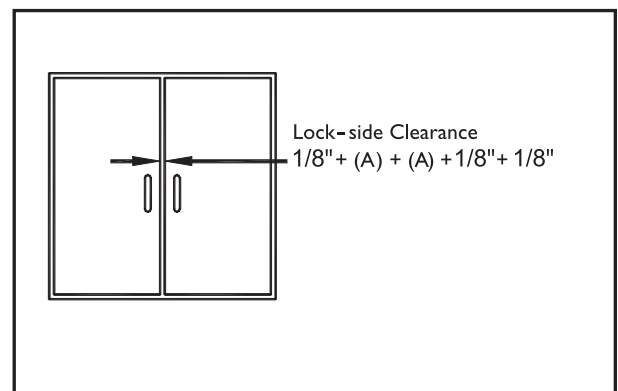
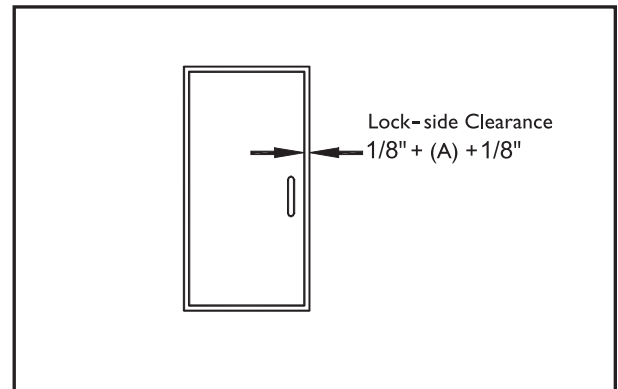
MODEL	Lock-side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
EG108	1/8	1/4	3/8



“Adjustable” application

MODEL	Lock-side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
EG108	1/8	3/8	5/8

Proper door reinforcement is required for adjustable feature.

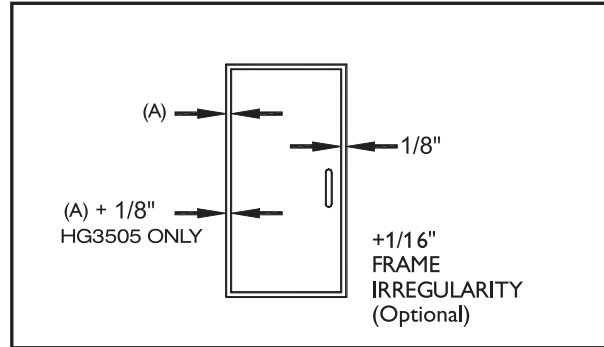


3500 Series Pin & Barrel Stainless Steel Security Hinges

Standard “Non-Adjustable” application

MODEL	Hinge Side Clearance (A)
FM3500	5/16
FS3501	1/8
FS3502	1/8
HG3505	5/16

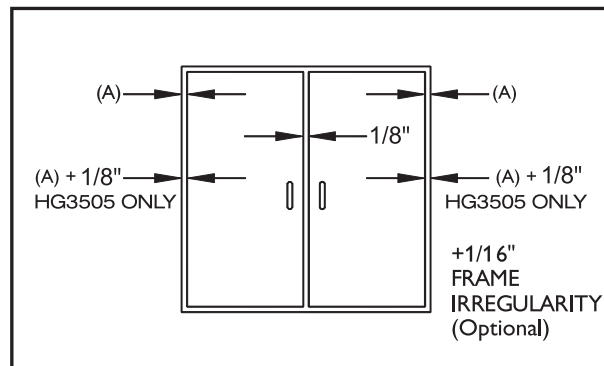
Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
1/2	13/16
5/16	7/16
5/16	7/16
1/2	13/16



“Adjustable” application

MODEL	Hinge Side Clearance (A)
HG3505	5/16

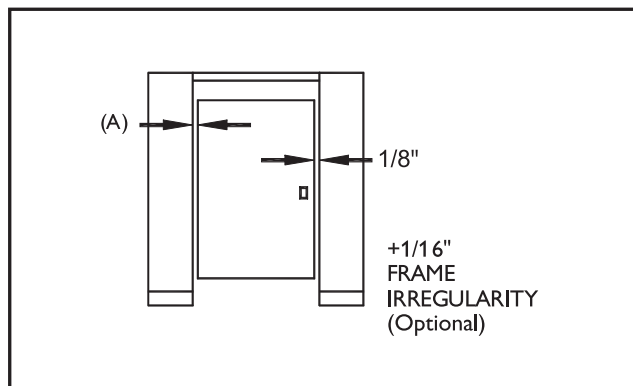
Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
5/8	1-1/16



400 Series Aluminum Pin & Barrel Toilet Partition Hinges

Standard “Non-Adjustable” application

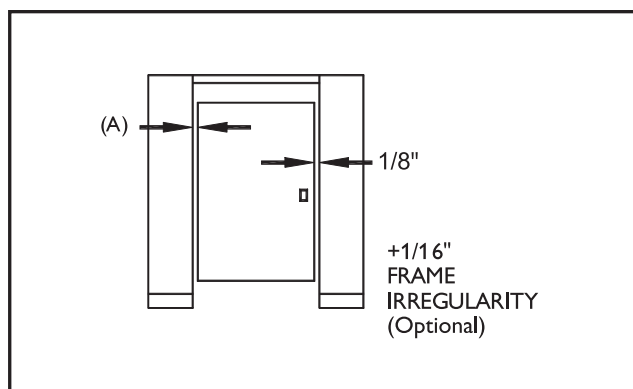
MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door
FS402	1/8	5/16



900 Series Stainless Steel Pin & Barrel Toilet Partition Hinges

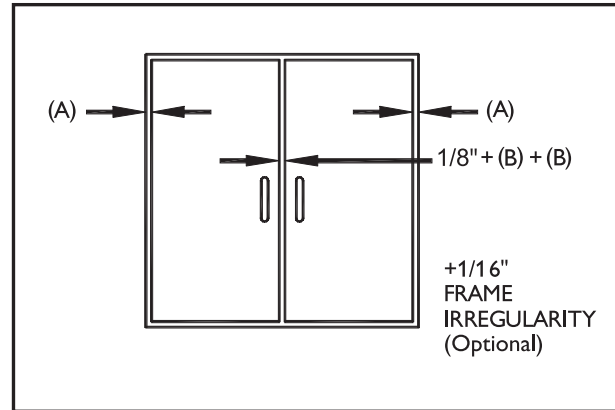
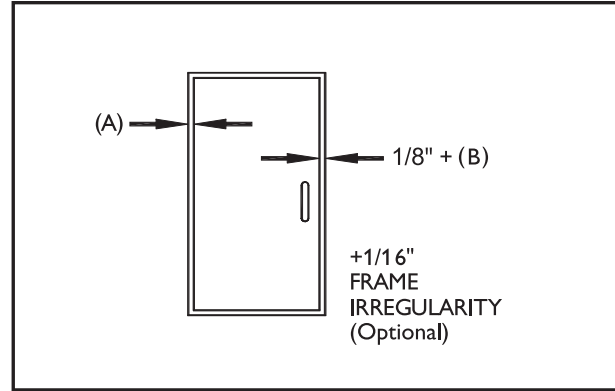
Standard “Adjustable” application

MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door
FS902	1/8	5/16



Standard “Non-Adjustable” application

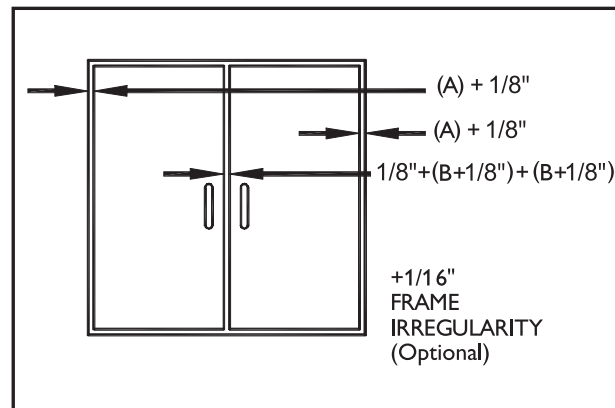
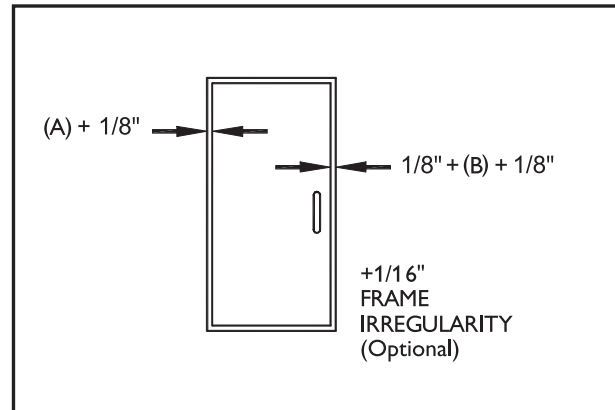
Combination Model	Hinge Side Clearance (A) & Edge Guard Clearance (B)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
HG305 & EG308	(A) = 5/16 (B) = 1/16	9/16	15/16
HG315 & EGC308	(A) = 1/4 (B) = 1/16	1/2	13/16
HG305 & EGT308	(A) = 5/16 (B) = 1/16	N/A	15/16
HG105 & EG108	(A) = 3/8 (B) = 1/8	11/16	1-3/16
HG329 & EG308	(A) = 1/4 (B) = 1/16	1/2	13/16

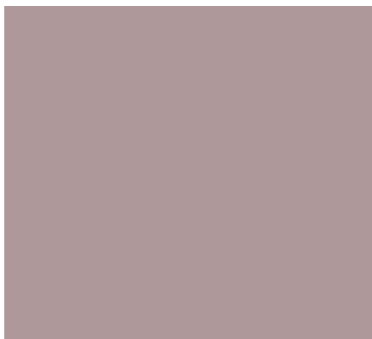
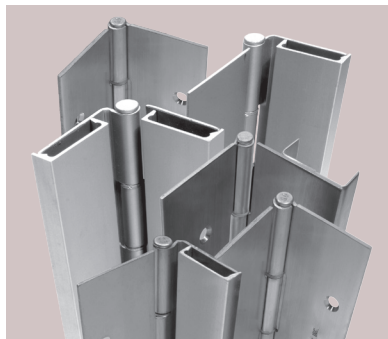


“Adjustable” application

Combination Model	Hinge Side Clearance (A) & Edge Guard Clearance (B)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
HG305 & EG308	(A) = 5/16 (B) = 1/16	13/16	1-7/16
HG305 & EGT308	(A) = 5/16 (B) = 1/16	N/A	1-7/16
HG105 & EG108	(A) = 3/8 (B) = 1/16	15/16	1-11/16
HG3505 & EG308	(A) = 5/16 (B) = 1/16	13/16	1-7/16

Proper door reinforcement is required for adjustable feature.





MEMPHIS, TN USA
P.O. Box 18966
Memphis, TN 38181
phone: 800 824-3018
fax: 800 243-3656

VENTURA, CA USA
P.O. Box 3780
Ventura, CA 93006
phone: 800 283-9988
fax: 800 283-4050

VANCOUVER, BC CANADA
103-2480 Mt. Lehman Road
Abbotsford, BC V2T 6W3
phone: 877 535-7888
fax: 877 535-7444

TORONTO, ON CANADA
160 Four Valley Dr.
Vaughan, ON L4K 4T9
phone: 877 535-7888
fax: 877 535-7444



ASSA ABLOY is the global leader in door opening solutions, dedicated to satisfying end-user needs for security, safety and convenience

Markar Architectural Products
information@markar.com
www.markar.com

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Full Surface Reinforcing Pivots

A practical way to ensure longer door life

This full-surface reinforcing pivot adds years of life to openings where the hinges or hinge reinforcements have failed. An economical way to solve door sag problems, reinforcing pivots take the load off the top hinge and transfer it to screws that will not pull out.

Applications

- Schools
- Healthcare
- Public Buildings

Technical Specifications:

Hinge Type:
Full Surface Reinforcing Pivots for Flush Doors

Material:
Heavy Duty 3/16" (.187) Cold-Rolled Steel

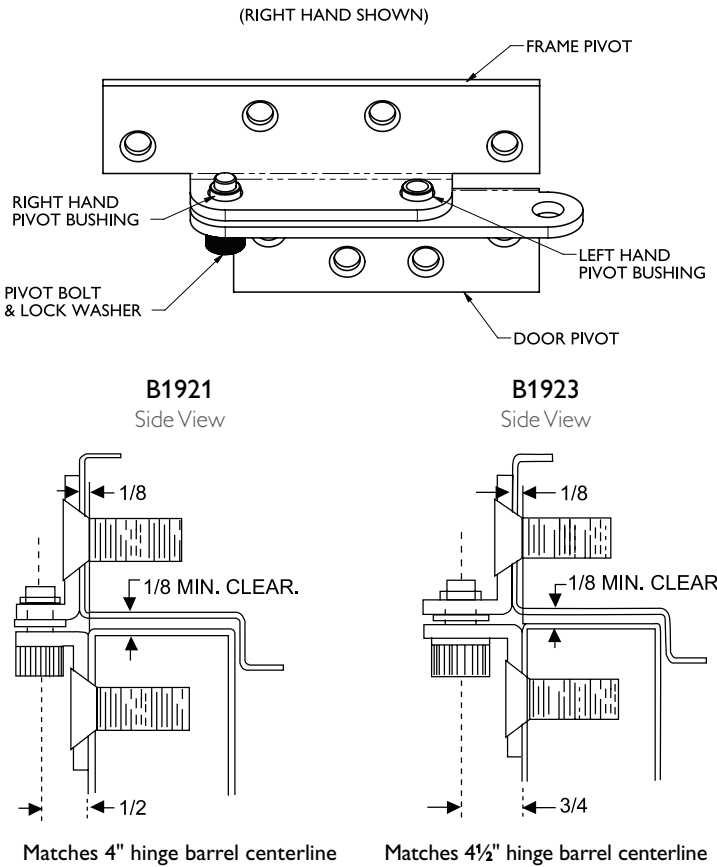
Finishes:
Zinc Plated (US2G)

Mounting Hardware:
8 ea. 1/4-20 x 3/4" Phillips flat head machine screws
8 ea. #14 x 1 1/4" Phillips flat head sheet metal screws
2 ea. 1/4-20 x 1 3/4" Sleeve bolts

Capacity:
Supports Weights up to 300 lbs.

Hole Pattern:
Symmetrically

Handing:
Non-handed



B1921	The B1921 pivot is designed with a 1/2" offset to match the pivot point of a 4" wide butt hinge.
B1923	The B1923 pivot is designed with a 3/4" offset to match the pivot point of a 4 1/2" wide butt hinge.

Matches 4" hinge barrel centerline

Matches 4 1/2" hinge barrel centerline

MEMPHIS, TN USA
P.O. Box 18966
Memphis, TN 38181
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fax: 800 243-3656

VENTURA, CA USA
P.O. Box 3780
Ventura, CA 93006
phone: 800 283-9988
fax: 800 283-4050

VANCOUVER, BC CANADA
103-2480 Mt. Lehman Road
Abbotsford, BC V2T 6W3
phone: 877 535-7888
fax: 877 535-7444

TORONTO, ON CANADA
160 Four Valley Dr.
Vaughan, ON L4K 4T9
phone: 877 535-7888
fax: 866 243-9817

Markar Architectural Products
information@markar.com
www.markar.com