

Aluminum Geared Hinges

General Information

Material

6063-T6 Aluminum

Standard Lengths

83", 85", 95", 120"

Custom lengths are available up to 120", consult factory.

Finishes

CL - US28 (628) Clear Anodized

BR - 313AN (710) Dark Bronze

Hinge Duty

All Ives Aluminum Geared Hinges are Heavy Duty (HD).

Amount of bearings varies by size:

83" – 32 Bearings

85" – 32 Bearings

95" – 36 Bearings

120"- 47 Bearings

Door Weight

Each hinge can hold a door up to 450 lbs (Rivet nuts recommended) and a max door width of 4'0".

ANSI Certified

All Ives Aluminum Geared Hinges excluding the 157XY are certified to ANSI 156.26, Grade 1

UL Listed

All Ives Aluminum Geared Hinges excluding the 157XY are tested and approved UL 10C (90 minutes).

Field Modifications:

All Ives Aluminum Geared Continuous Hinges can be cut to length during installation. The unique mounting pattern allows to cut up to 6" from bottom while still having double row fasteners. If cut more than 13.5", other modifications may be necessary.

Electrification Options

Only available for the full mortise hinges

Electric Power Transfer (EPT)

Electric power transfer provides a means of transferring power from the door frame to the edge of a swinging door. Ives Continuous Hinges provide standard cut outs to fit Von Duprin EPT-2, EPT-10 and PNT-1 devices. Consult factory for other electrical cut out options.

Electrical Through-Wire (TW)

Provides electric power transfer from the frame to the door in order to supply power to an electrified mortise or cylindrical locks, exit devices with electric latch retraction, and/or electric strikes (pairs of doors). Through-wire is rated 50 volts AC/DC at 3.5 amp continuous and 16 amp pulse. Maximum pulse 400 milliseconds. Ives thru-wire hinges are fully compatible with 4 wire and 8 wire installations.

Aluminum Geared Hinges

How to Order:

	<u>112HD</u>	-	<u>CL</u>	-	<u>83</u>	-	<u>EPT</u>
Model							
045HD	Half Surface						
046HD	Half Surface						
053HD	Half Surface						
054HD	Half Surface						
112HD	Full Mortise						
157XY	Full Surface - Center Pivot						
157HD	Full Surface - Center Pivot						
210HD	Full Surface - Swing Clear						
224HD	Full Mortise - Edge Protector						
Finish							
CL	Clear						
BR	Bronze						
<i>Custom finishes available, consult factory</i>							
Length							
83"							
* 85"							
95"							
120"							
<i>Other lengths available up to 120", consult factory. Handing required.</i>							
Options							
**EPT	Electric Power Transfer Prep						
**TW8	Electric Through Wire						
*SEC	Security Fasteners - Pin-in-Socket						
WD	Wood Fasteners						
TF	Thread forming screws (pilot hole required)						
HT	Hospital Tip						
TWP	Through Wire Panel						

* Not available with 157XY Continuous Hinge

** Full Mortise Models Only

A17
Hinges & Pivots

B
Pulls & Plates

C
Flush Bolts & Coordinators

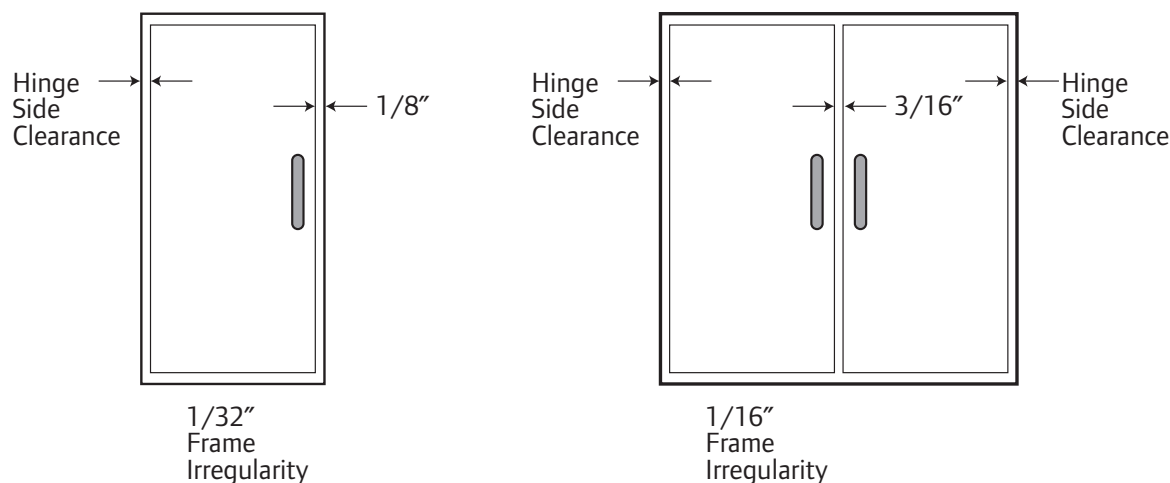
D
Latches, Catches & Bolts

E
Stops

F
Exterior Hardware

G
Miscellaneous Hardware

Aluminum Geared Hinges - Clearance Requirements



SINGLE DOOR

Model	Hinge-Side Clearance	Lock-Side Clearance	Frame Irregularity	Beveled Door Clearance	Door Under-Sizing Square Edged	Door Under-Sizing Beveled Edged
045HD	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
046HD	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
053HD	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
054HD	5/32"	1/8"	1/32"	1/32"	5/16"	11/32"
112HD	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
224HD	5/16"	1/8"	1/32"	1/32"	15/32"	1/2"
210HD	1/16"	1/8"	1/32"	1/32"	7/32"	1/4"
157XY	1/16"	1/8"	1/32"	1/32"	7/32"	1/4"

PAIR OF DOORS

Model	Hinge-Side Clearance	Lock-Side Clearance	Frame Irregularity	Beveled Door Clearance	Square Edged Total	Square Edged Each Door	Door Under-Sizing Beveled Edged Total	Door Under-Sizing Beveled Edged Each Door
045HD	5/32"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
046HD	5/32"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
053HD	5/32"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
054HD	5/32"	3/16"	1/16"	1/16"	9/16"	9/32"	5/8"	5/16"
112HD	5/16"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
224HD	5/16"	3/16"	1/16"	1/16"	7/8"	7/16"	15/16"	15/32"
210HD	1/16"	3/16"	1/16"	1/16"	3/8"	3/16"	7/16"	7/32"
157XY	1/16"	3/16"	1/16"	1/16"	3/8"	3/16"	7/16"	7/32"

Templates and installation instructions available on line at www.allegion.com/us

**045HD Half Surface Continuous Hinge**

- Half surface for retrofit or new construction
- Handing required when modified
- Frame leaf depth 1-9/16"
- 9/32" door inset

Standard lengths 83", 85", 95", 120"

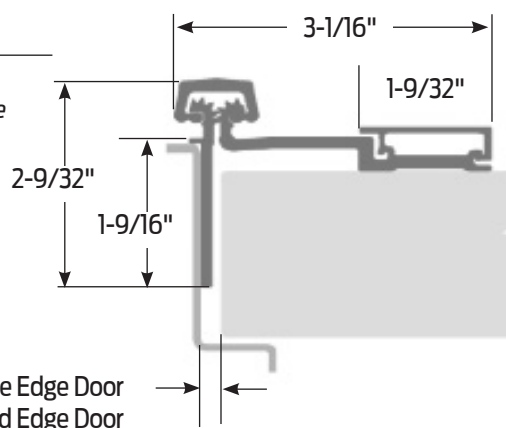
Standard Mounting Hardware

12-24 x 1/2" steel self tapping screw
 1/4-20 x 1-1/2" AL Sex Bolt
 1/4-20 x 1" Steel Shoulder Bolt
 12-24 x 3/4" Steel Self Drilling Shoulder Bolt
 Optional SEC-Security Fasteners available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



5/32" Clearance for Square Edge Door
 3/16" Clearance For Beveled Edge Door

**046HD Half Surface Continuous Hinge**

- Half surface for retrofit or new construction
- Handing required when modified
- Frame leaf depth 1-15/16"
- 9/32" door inset

Standard lengths 83", 85", 95", 120"

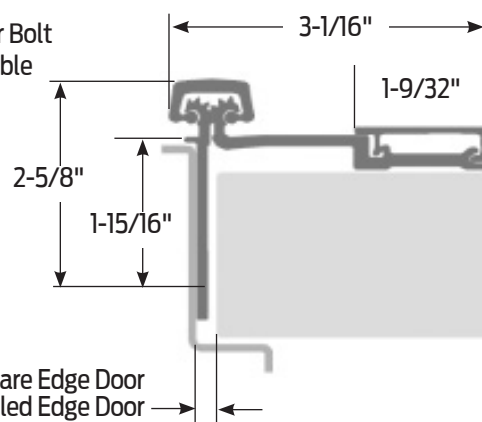
Standard Mounting Hardware

12-24 x 1/2" steel self tapping screw
 1/4-20 x 1-1/2" AL Sex Bolt
 1/4-20 x 1" Steel Shoulder Bolt
 12-24 x 3/4" Steel Self Drilling Shoulder Bolt
 Optional SEC-Security Fasteners available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



5/32" Clearance for Square Edge Door
 3/16" Clearance For Beveled Edge Door



053HD Half Surface Continuous Hinge

- Half surface for retrofit or new construction
- Handing required when modified
- Frame leaf depth 1-9/16"
- 1/8" door inset

Standard lengths 83", 85", 95", 120"

Standard Mounting Hardware

12-24 x 1/2" steel self tapping screw

1/4-20 x 1-1/2" AL Sex Bolt

1/4-20 x 1" Steel Shoulder Bolt

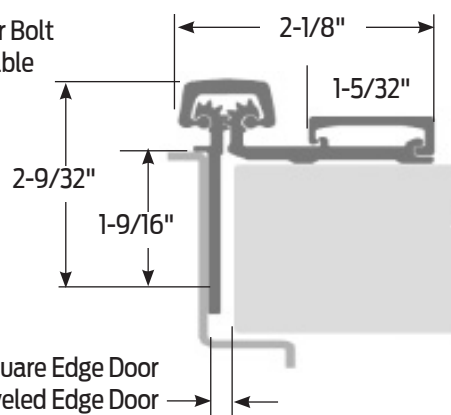
12-24 x 3/4" Steel Self Drilling Shoulder Bolt

Optional SEC-Security Fasteners available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



5/32" Clearance for Square Edge Door

3/16" Clearance For Beveled Edge Door



054HD Half Surface Continuous Hinge

- Half surface for retrofit or new construction
- Handing required when modified
- Frame leaf depth 1-15/16"
- 1/8" door inset

Standard lengths 83", 85", 95", 120"

Standard Mounting Hardware

12-24 x 1/2" steel self tapping screw

1/4-20 x 1-1/2" AL Sex Bolt

1/4-20 x 1" Steel Shoulder Bolt

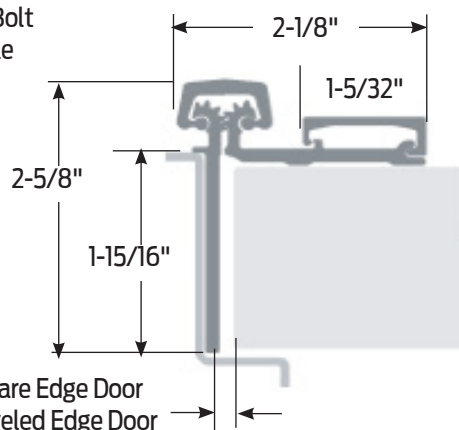
12-24 x 3/4" Steel Self Drilling Shoulder Bolt

Optional SEC-Security Fasteners available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



5/32" Clearance for Square Edge Door

3/16" Clearance For Beveled Edge Door



112HD Full Mortise Aluminum Geared Continuous Hinge

- Non Handed
- Flush Mounted, No Inset
- 48" Maximum Door Width
- Beveled or Square Edge Doors

For Doors Weighing up to 450 pounds without reinforcing,
600 pounds with reinforcing

Standard lengths 83", 85", 95", 120"

Standard Mounting Hardware

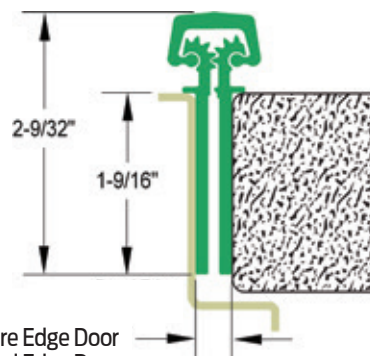
12-24 X 3/4" Steel Self Drilling, Self Tapping Screws

Optional WD - Wood Screws or SEC - Security Fasteners Available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are
available, consult factory.



5/16" Clearance for Square Edge Door
1/32" Clearance For Beveled Edge Door



157XY Full Surface, Center Pivot Aluminum Geared Continuous Hinge

- Non Handed
- Narrow Frame
- 1/16" Door Inset
- 48" Maximum Door Width
- Beveled or Square Edge Doors
- A patented easy-to-install, heavy duty, full surface continuous hinge
- Lateral and vertical adjustability while the door is still hanging

For Doors Weighing up to 550 pounds

Standard lengths 83", 95", 119"

Standard Mounting Hardware

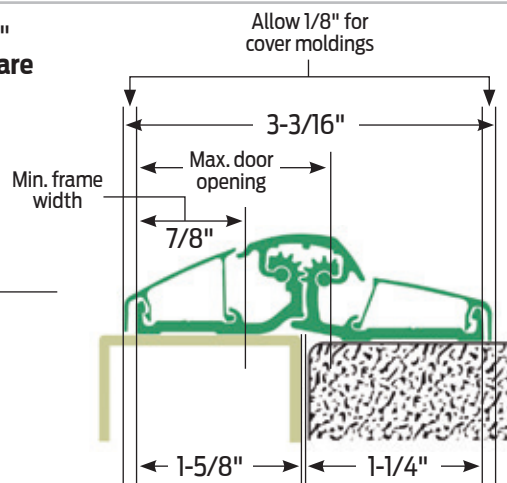
12-24 X 1/2" Steel Self Drilling
and Tapping Screws,

Optional Wood Screws and
Security Fasteners Available

Custom Paint Finish Available

Finishes

Clear (CL), Dark Bronze (DB)



A22

Hinges & Pivots

B

Pulls & Plates

C

Flush Bolts & Coordinators

D

Latches, Catches & Bolts

E

Stops

F

Exterior Hardware

G

Miscellaneous Hardware



210HD Full Surface, Swing Clear Aluminum Geared Continuous Hinge

- Handing required when modified
- 1/32" Door Inset
- 48" Maximum Door Width
- Beveled or Square Edge Doors

For Doors Weighing up to 600 pounds

Standard lengths 83", 85", 95", 120"

Standard Mounting Hardware

12-24 X 1/2" Steel Self Tapping Screws,

1/4-20 X 1-1/2" AL Sex Bolt

1/4-20 X 1" Steel

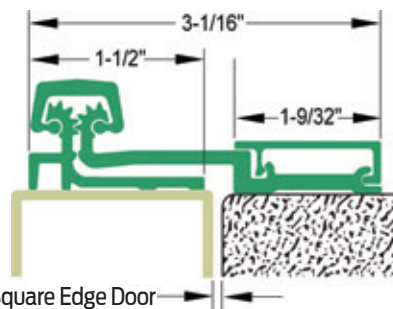
Shoulder Bolt, 12-24 X 3/4" Steel Self Drilling,

Optional SEC - Security Fasteners Available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



1/16" Clearance for Square Edge Door
3/32" Clearance For Beveled Edge Door



224HD Full Mortise Aluminum Geared Continuous Hinge

- Hanging required when modified
- Door Edge Protector
- 48" Maximum Door Width
- 1/16" Door Inset
- Beveled or Square Edge Doors

For Doors Weighing up to 450 pounds without reinforcing,
600 pounds with reinforcing

Standard lengths 83", 85", 95", 120"

Standard Mounting Hardware

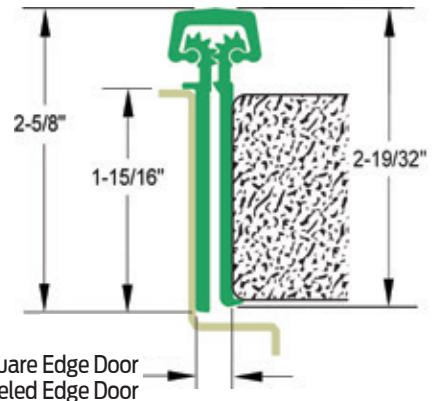
12-24 X 3/4" Steel Self Drilling, Self Tapping Screws

Optional WD - Wood Screws or SEC - Security Fasteners Available

Finishes

Clear (CL), Dark Bronze (DB)

Custom Anodizing and Painting are available, consult factory.



5/16" Clearance for Square Edge Door
1/32" Clearance For Beveled Edge Door

Electrical Cutouts

Ives Aluminum Geared Continuous Hinges are available with factory modified cutouts to accommodate most electrical frame to door requirements. Special templates are required.

When ordering indicate the following:

1. Opening size.
2. Hanging. LH, RH, RHR or LHR.
3. Manufacturer and model number of the electrical product being used. Example; Von Duprin EPT2

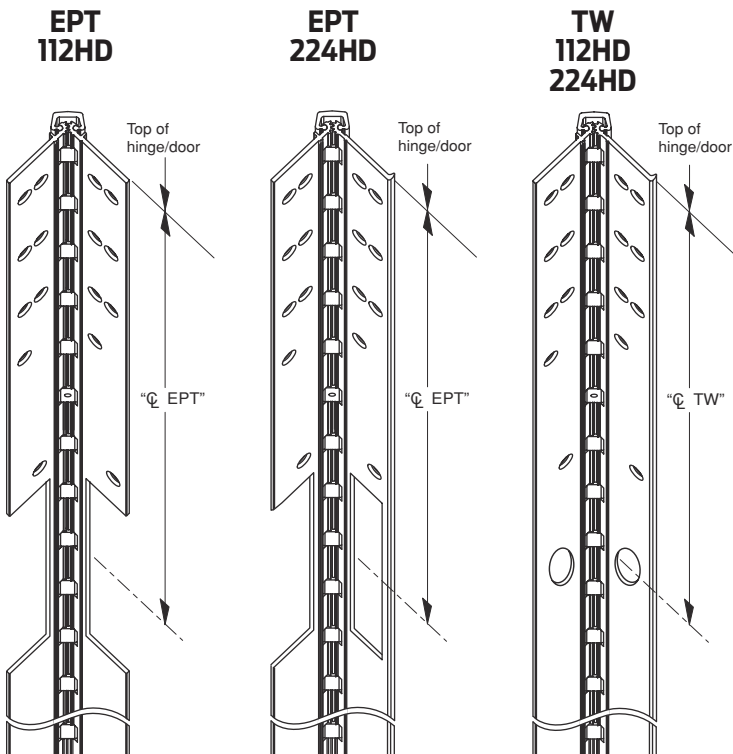
Because clearances may vary between door and frame manufacturer, and locations can be influenced by the door hardware it is always recommend contacting Ives Customer Technical for specific template information.

For your general information below are standard locations for Von Duprin EPT2 or EPT10, and monitor switch.

From Top Edge of Door to Center Line of Cut-Out

Standard Length	112HD EPT	224HD EPT	112HD/224HD TW
83"	30"	30"	41-1/2"
85"	32"	32"	42-1/2"
95"	42"	42"	57-3/4"
120"	67"	67"	81-25/32"

TWP option centered in hinge.



Note: See ordering guide in price book for proper placement.