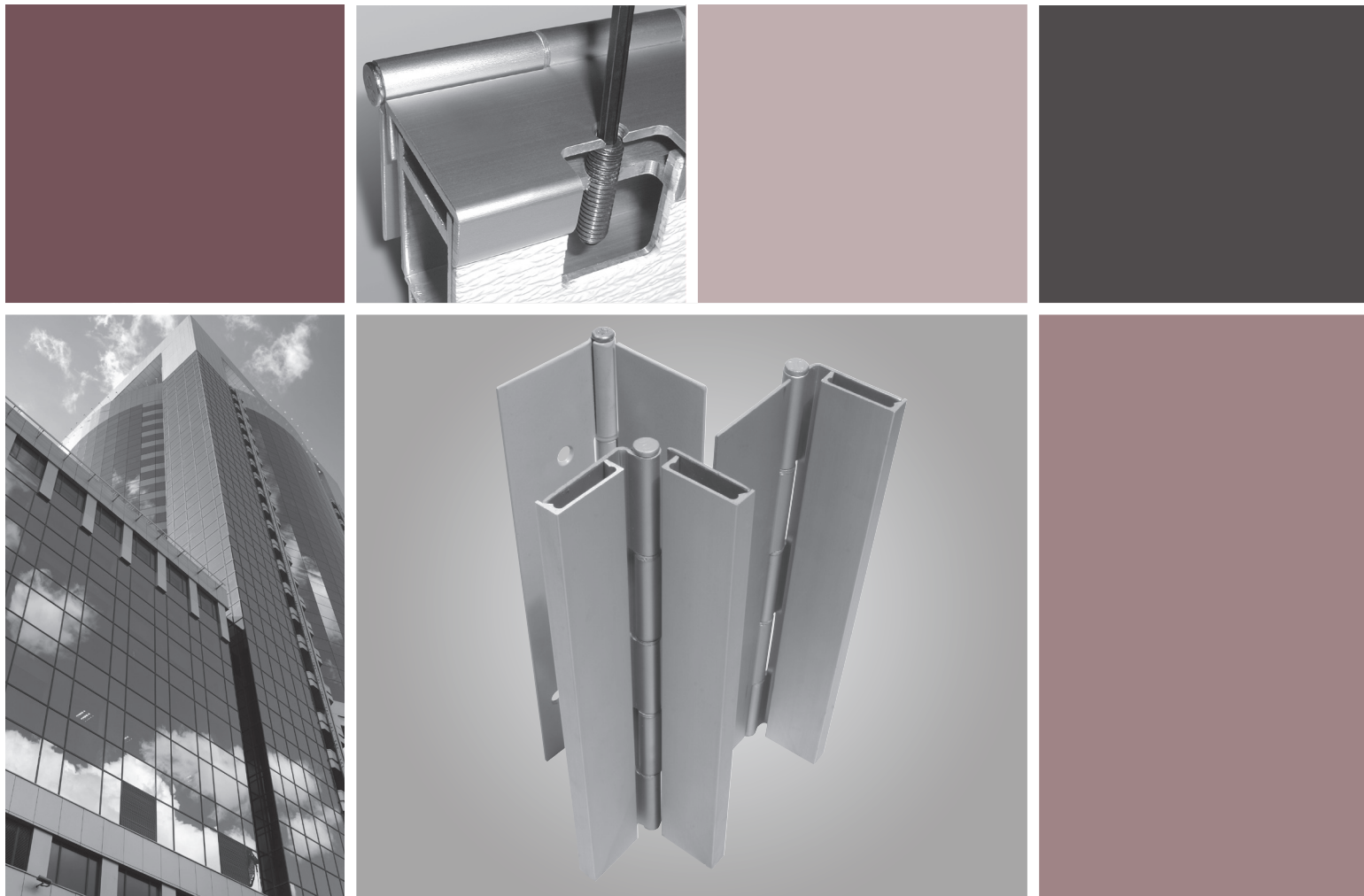


Markar Architectural Products



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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)

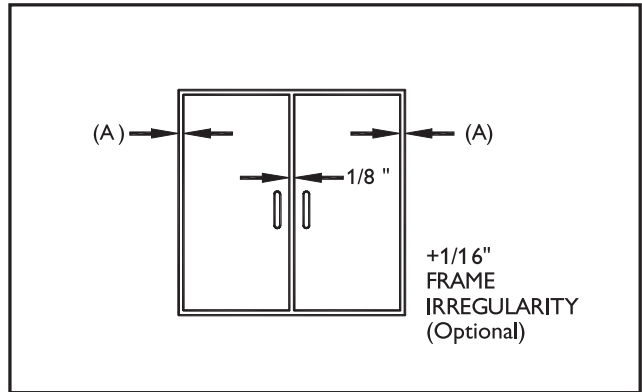
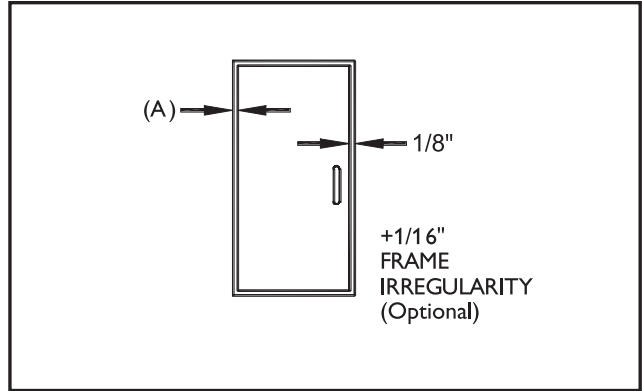
Example for Standard Pair of Doors:

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

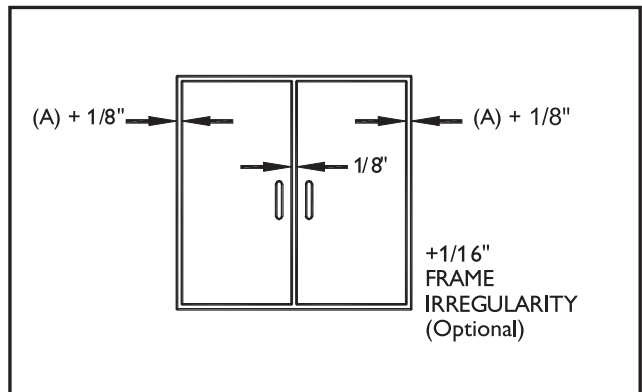
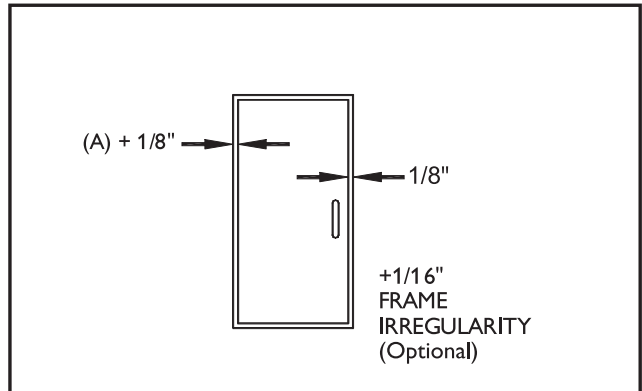
Models with * will work with Industry Standard Clearances.



“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

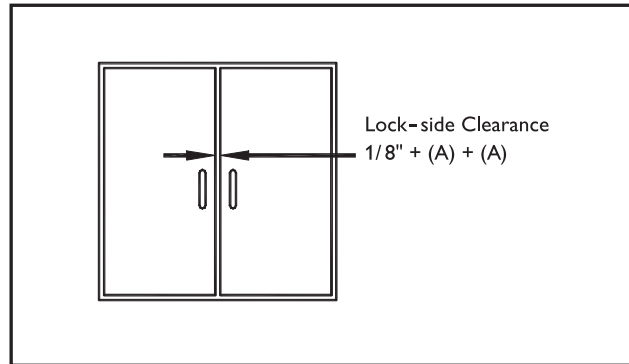
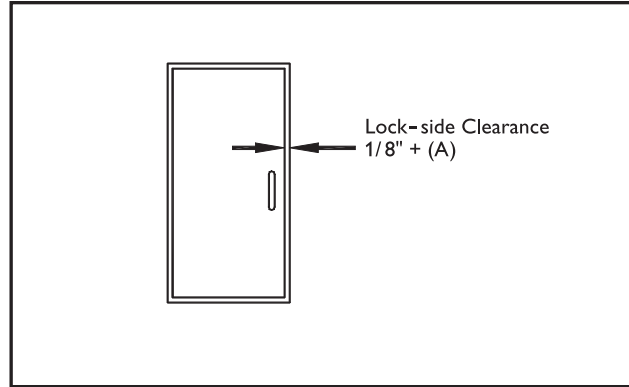
Proper door reinforcement is required for adjustable feature.



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"**.

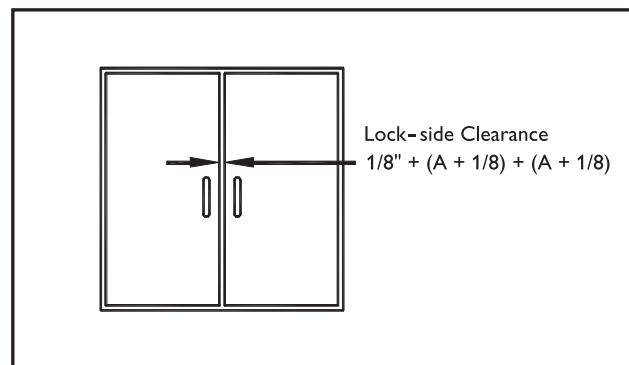
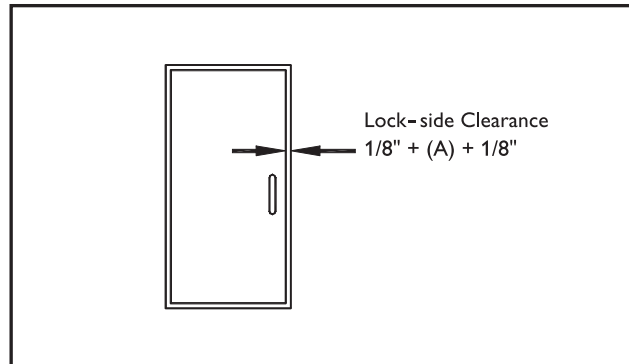


“Adjustable” application

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"**.

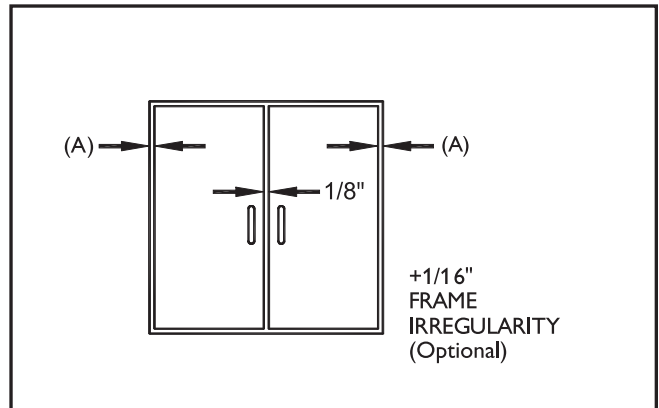
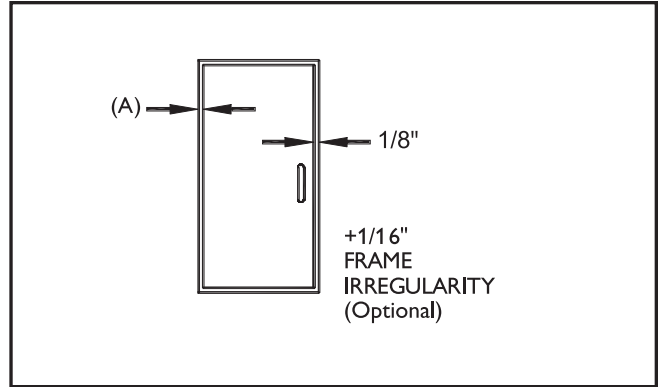
Proper door reinforcement is required for adjustable feature.



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

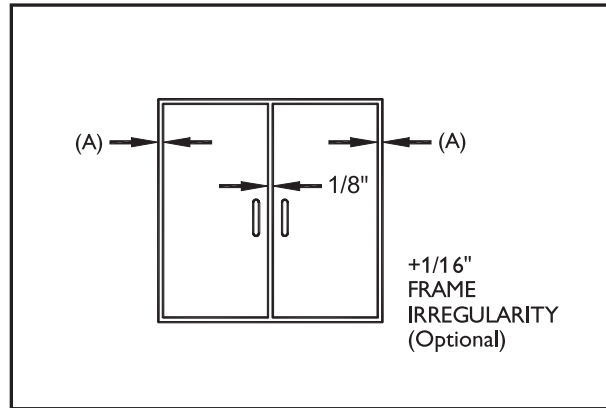
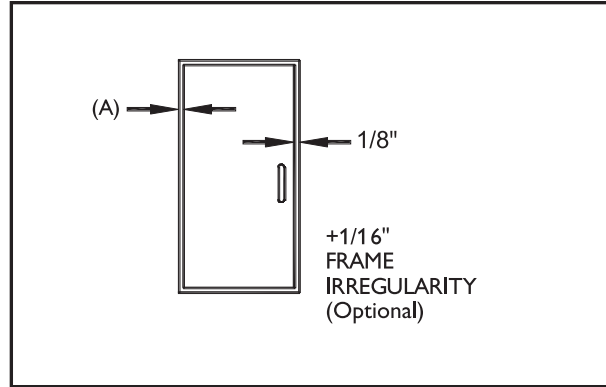
Models with * will work with Industry Standard Clearances.



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

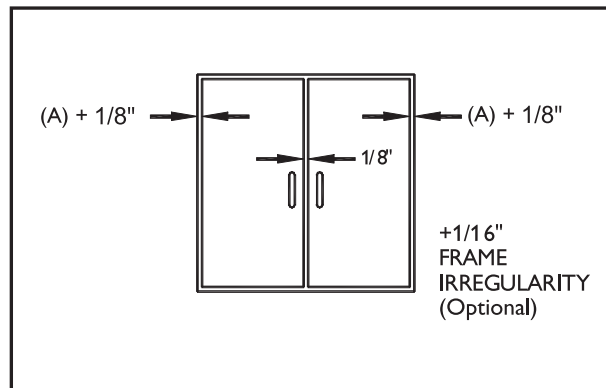
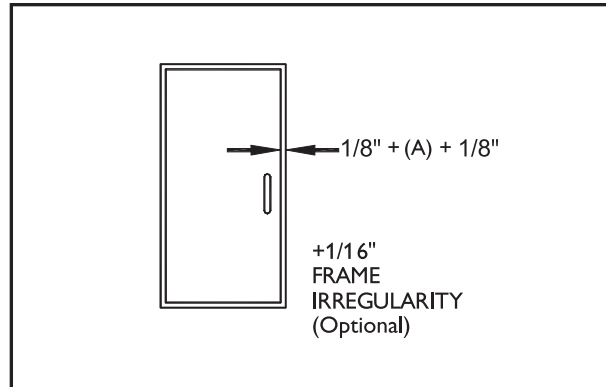
Models with * will work with Industry Standard Clearances.



“Adjustable” application

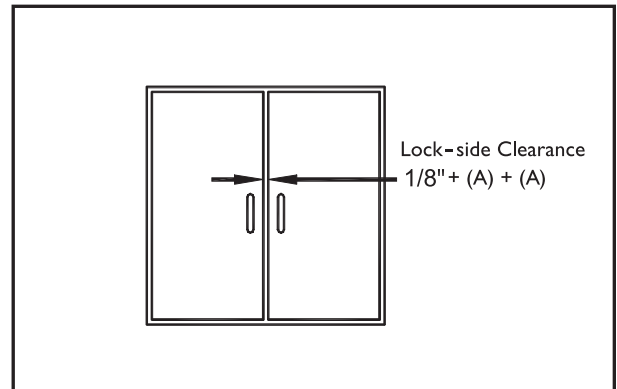
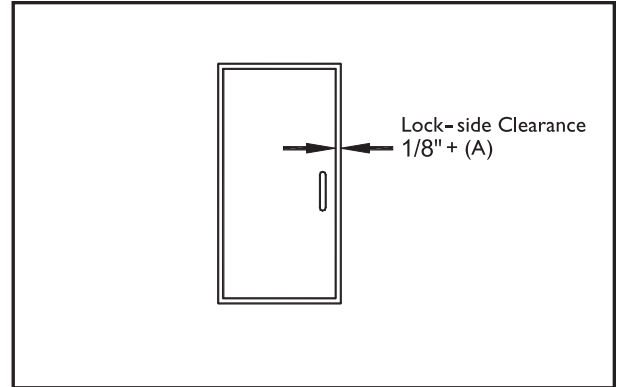
MODEL	Edge Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
HG105	3/8	11/16	1-3/16

Proper door reinforcement is required for adjustable feature.



Standard “Non-Adjustable” application

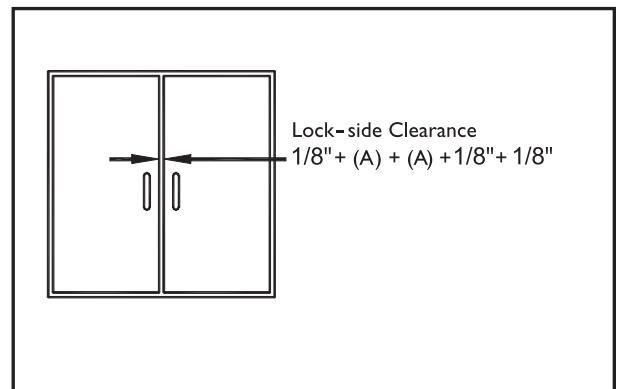
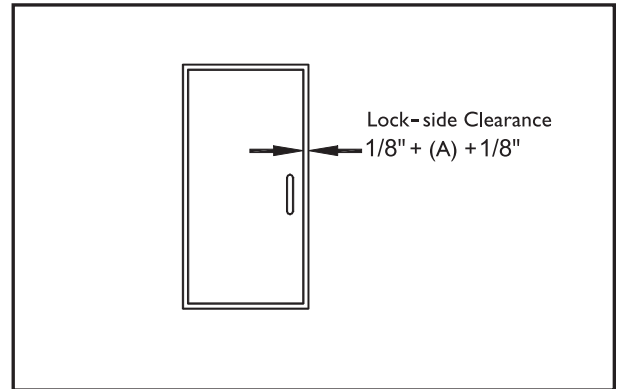
MODEL	Lock-side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
EG108	1/8	1/4	3/8



“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

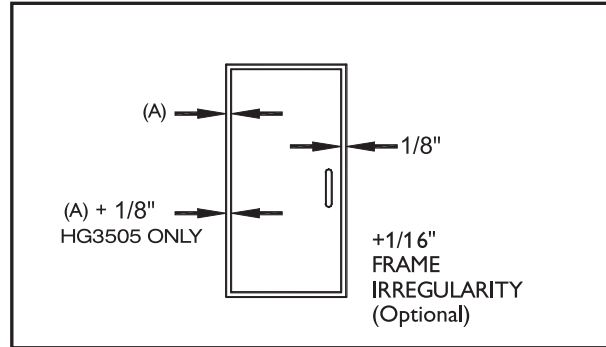
Proper door reinforcement is required for adjustable feature.



3500 Series Pin & Barrel Stainless Steel Security Hinges

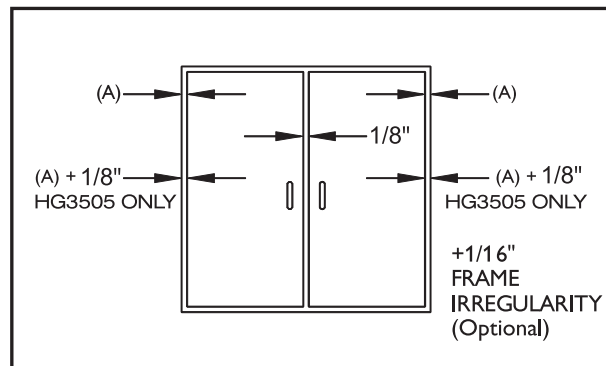
Standard “Non-Adjustable” application

MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
FM3500	5/16	1/2	13/16
FS3501	1/8	5/16	7/16
FS3502	1/8	5/16	7/16
HG3505	5/16	1/2	13/16



“Adjustable” application

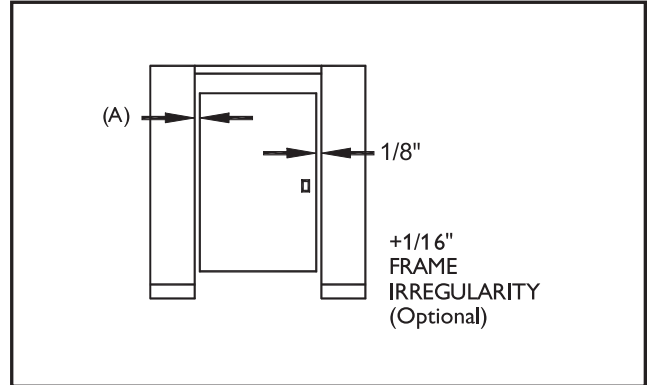
MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
HG3505	5/16	5/8	1-1/16



400 Series Aluminum Pin & Barrel Toilet Partition Hinges

Standard “Non-Adjustable” application

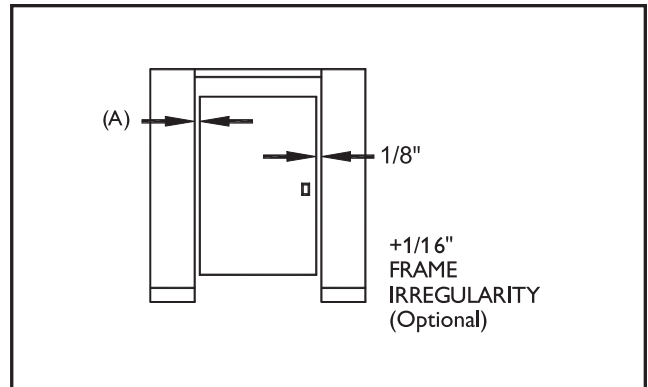
MODEL	Hinge Side Clearance (A)	Total Under-sizing For Single Door
FS402	1/8	5/16



900 Series Stainless Steel Pin & Barrel Toilet Partition Hinges

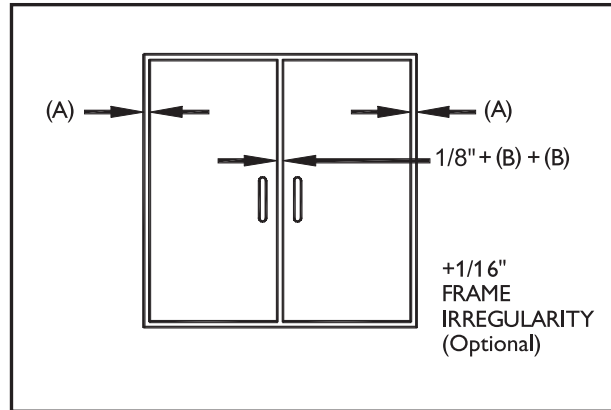
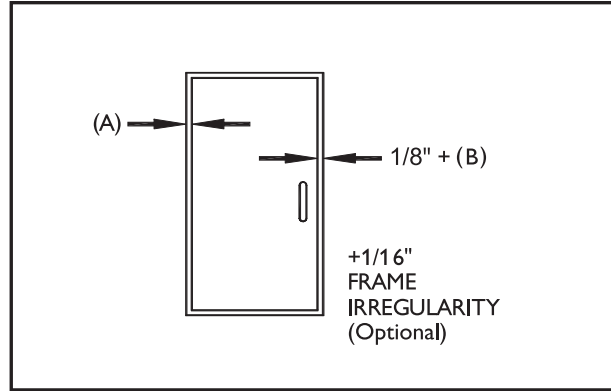
Standard “Adjustable” application

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



Standard “Non-Adjustable” application

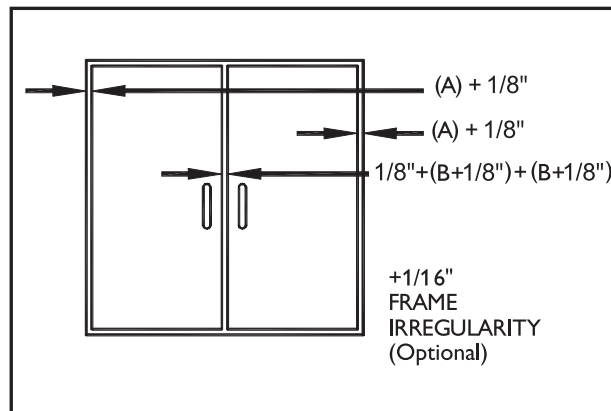
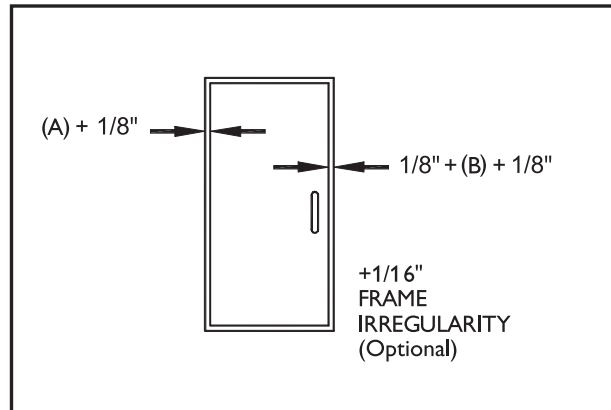
Combination Model	Hinge Side Clearance (A) & Edge Guard Clearance (B)	Total Under-sizing For Single Door	Total Under-sizing For Pair of Doors
HG305 & EG308	(A) = 5/16 (B) = 1/16	9/16	15/16
HG315 & EGC308	(A) = 1/4 (B) = 1/16	1/2	13/16
HG305 & EGT308	(A) = 5/16 (B) = 1/16	N/A	15/16
HG105 & EG108	(A) =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

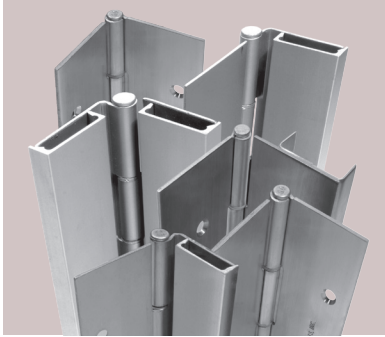


“Adjustable” application

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.





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