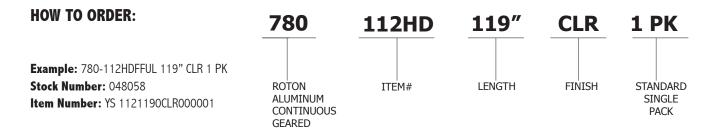
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INTRODUCTION

Hager Roton hinges are unique, aluminum geared hinges developed to outperform most other entrance components because the weight of the door is distributed along the full length of the door frame.

Roton continuous hinges have been utilized in hospitals, schools, hotels, offices, airports, stadiums, storefronts, and commercial and industrial buildings in new construction and retrofit applications for over 30 years.

Hager Roton continuous geared hinges are designed for superior performance. Because of this, we offer our lifetime warranty with confidence.

ANSI Standards

• 780 Series Roton continuous geared hinges are approved per ANSI A156.26 Grade 1 for 150 lb. doors

HINGE

- 780 Series Roton heavy duty hinges are approved per ANSI A156.26 Grade 1 for 300 lb. doors
- 780-111, 780-124HD, 780-224, 780-226 standard duty and heavy duty Roton continuous geared hinges are Warnock-Hersey certified in accordance with ANSI A250.13 2003 Standard Severe Windstorm Resistant Components.

Lead Times

Stock orders will typically ship within 5-10 business days and the anticipated ship date will be included with each order acknowledgement.

Made to order products will typically ship within 10 business days depending on seasonal volume and order complexity.

Special orders including industrials, special machining, and large quantities will need to be scheduled. Please contact our customer service for details.

Made to order products requiring special finishes may take longer depending on the quantity and capacity. Please contact our customer service for details.

Lead times are quoted from the time our manufacturing facilities receive the orders placed.

Quick Ship

The items throughout this price book that have prices in **bold and red** are items included in the Hager Quick Ship Program and ship in three days or less. When ordering these products, please visit www.hagerco.com and click on 'Quick Ship' in the footer. You will be prompted to log in with your My Hager account name and password and then you may begin ordering.

Cancellation Notification

Cancellation for made to order items must be completed within 48 hours of order placement.



Standard Lengths

Roton hinges are listed and priced as actual lengths 79" (6'8" opening), 83" (7'0" opening), 85" (7'2" opening), 95" (8'0" opening), and 119" (10'0" opening) for convenience in application to nominal sized doors. Actual length provides for threshold clearance, head clearance and door height allowances for carpeting. Other lengths may be ordered as non-standard items.

Special Lengths

Should a non-standard length be required, please order the next standard length. (For example, if 86" length is required, use 95" list price.)

Length Specifications

If special lengths to match the actual net door heights are required, please indicate this clearly on your order. A special length should be specified from the net door height, not the nominal height of the opening. To order specify: "Actual Length", or "Net Door Height". Use pricing for the next longer standard length from which the special length can be manufactured. For example, hinges 86-3/4" long will be invoiced at the 95" price.

Field Modifications

While Roton hinges can be cut in the field, any product modifications may void all warranties. Should in-the-field modifications be required, cut only from bottom of hinge. Do not cut through bearings or screw holes. When cutting electric hinges it is extremely important to clamp both hinge leaves securely to prevent hinge "chatter" which can damage the hinge's internal wiring. Consult the St. Louis sales office before proceeding.

Template Hinges

Hager has developed templated hole patterns for Roton hinge models in standard lengths. Drawings are available upon request by contacting Hager Customer Service or accessing the Hager website at www.hagerco.com.

Due to normal variances inherent in the manufacturing process, Roton custom length hinges are deemed by Hager to be non-templated.

Standard Finishes

Roton hinges are available in clear anodized satin aluminum (similar to US28) or in dark bronze exterior anodized coating.

Special Products

A special product is any product not listed in the price book in regard to length, finish, standard hole preparation or leaf combinations not illustrated. Orders for special products are encouraged, but any changes or cancellations on special orders may result in charges related to work performed and/or material loss. Under no circumstance will non-stock or make-to-order products be accepted for return unless due to Hager error.

FIRE RATINGS - UNDERWRITERS LABORATORY FIRE RATING FILE #A14627



780 Series Roton continuous geared hinges with stainless steel studs are approved for use on 4'x10' metal or wood swing type doors. 780 Series Roton continuous geared hinges without stainless steel studs are approved for use on 4'x8' single swing metal doors and 4'x10' single swing wood doors used without stainless steel studs limited to 20 minute fire rating without hose stream.

- Hollow metal, tin-clad, sheet-metal and steel covered composite type rated up to and including 3 hours
- Wood composite doors rated up to and including 1-1/2 hours
- Wood core doors rated up to 20 minutes without hose stream, non-studded
- 780 Series Roton Continuous Geared Hinges meet requirements for positive pressure UL10C, UL10B and UBC7-2 Part 1

UL10C Fire Rated Roton	Fully Concealed	Full Surface	Half Surface	NOTES:			
20 Minute Fire Rated Wood Core Door x Fire Rated Hollow Metal Frame	UL -	- FF STANDAF	RD	1. All Roton hinges will be usted marked with			
20 Minute Fire Rated Metal Door x Fire Rated Hollow Metal Frame	UL -	- FF STANDAF	RD	UL stamp if they are fire-rated.			
30 Minute Fire Rated Wood Composite Door x Fire Rated Hollow Metal Frame	UL -	- FF STANDAF	RD	2. Several hinge			
30 Minute Fire Rated Metal Door x Fire Rated Hollow Metal Frame	UL -	FF STANDAR	RD	models cannot be fire-rated. Check each			
45 Minute Fire Rated Wood Composite Door x Fire Rated Hollow Metal Frame	UL -	- FF STANDAF	RD	profile.			
45 Minute Fire Rated Metal Door x Fire Rated Hollow Metal Frame	UL -	FF STANDAR	RD	3. Models for which studs are required			
60 Minute Fire Rated Wood Door x Hollow Metal Frame	UL -	- FF STANDAF	RD	have an extra charge. Four studs are required			
60 Minute Fire Rated Metal Door x Hollow Metal Frame	UL -	FF STANDAR	RD	for UL stud hinges. Add to the hinge list			
90 Minute Fire Rated Metal Door x Fire Rated Hollow Metal Frame	UL -	FF STANDAR	RD	price before applying buying group discount			
90 Minute Fire Rated Wood Composite Door x Fire Rated Hollow Metal Frame	UL — STUD F	REQUIRED * M	lust Specify	- \$56.80.			
3 Hour Fire Rated Metal Door x Fire Rated Hollow Metal Frame	UL — STUD F	REQUIRED * M	lust Specify				



FULLY CONCEALED WITH STUD

Fully Concealed

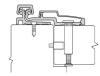
These models are concealed between the frame and the hinge edge of the door. Models available include: 780-041HD, 780-041LL, 780-110HD, 780-111, 780-111HD, 780-111LL, 780-112, 780-112HD, 780-112LL, 780-124HD, 780-124LL, 780-224, 780-224HD, 780-224LL, 780-226HD, 780-226LL, and 780-235HD.



HALF SURFACE WITH STUD

Half Surface

These models have the frame leaf concealed between the frame and the edge of the door. The door leaf is mounted to the door with thru-bolts or screws. Models available include: 780-045HD, 780-046HD, 780-053, 780-053HD, 780-054HD, and 780-211HD.



FULL SURFACE WITH STUD

Full Surface

These models have the frame leaf mounted to the face of the frame and the face of the door. The door leaf is mounted to the face of the door with thru-bolts. Models available include: 780-057HD, 780-157, 780-157HD, 780-210, 780-210HD, and 780-257HD.



Special Cover Channels

119"

Note:

Special covers for decorative, fluted or rounded effects may be ordered. Availability for hinges with electrical modifications vary. Please consult the St. Louis sales office for confirmation. Add to the hinge list price before applying buying group discount:

Decorative Back Concentration Clear Anodized	over Channels*	1/2" wide decorative insert
79", 83", 85"	\$25.15	decorative insert
95"	\$31.15	. ↓
119"	\$40.15	
Bronze Anodized		
79", 83", 85"	\$50.20	Decorative Back
95"	\$56.20	Decorative insert not
119"	\$64.25	available through Hager.

^{*}Not available on electrical prep or painted hinges.

\$64.25

Fluted Back Cover	Channels	
Clear Anodized	CHAIIICIS	
79", 83", 85"	\$25.15	
95"	\$31.15	
119"	\$40.15	
113	4 10110	
Bronze Anodized		
79", 83", 85"	\$50.20	16
95"	\$56.20	Fluted Back
119"	\$64.25	
	•	
Round Back Cover	Channels	
Clear Anodized		
79", 83", 85"	\$25.15	
95"	\$31.15	
119"	\$40.15	
Bronze Anodized		
79", 83", 85"	\$50.20	Round Back
95"	\$56.20	
119"	\$64.25	

and dark bronze finish.

Special cover channels available only in clear

	Roton Cove	r Channel Co	mpatibility	
Hinge Model	Flat FBCC	Round RBCC	Flutee FLCC	Decorative DBCC
750-134	•	•	•	•
750-138	•	•	•	•
780-041	•	•		
780-045	•	•		
780-046	•	•		
780-053	•	•		
780-054	•	•		
780-057	•	•		
780-110	•	•	•	•
780-111	•	•	•	•
780-112	•	•	•	•
780-113	•	•	•	•
780-114	•	•		
780-124	•	•	•	•
780-155	•	•		
780-157	•			
780-208	•		•	•
780-210	•	•		
780-211	•	•		
780-213	•	•		
780-224	•	•	•	•
780-226	•	•	•	•
780-235	•	•	•	•
780-257	•			
780-259	•	•		
780-300	•			

MODIFICATIONS & ADDITIONS

ADDITION TO LIST PRICE

Painted Cover Channels

 For hinges 79", 83" and 85" in length
 \$60.30

 For hinges 95" in length
 \$82.25

 For hinges 119" in length
 \$122.40

Roton cover channels are offered in bone white as a standard stock color option. This is only available on the standard Roton cover channel and should be ordered as bone white paint # UC43350.

Polished Cover Channels	CLEAR	GOLD
For hinges 79" in length	\$60.30	\$82.25
For hinges 83" in length	\$60.30	\$82.25
For hinges 85" in length	\$60.30	\$82.25
For hinges 95" in length	\$82.25	\$102.30
For hinges 119" in length	\$121.35	\$140.40

Any hinge may be ordered with a polished clear cover channel (similar to US26) to complement clear anodized hinge leaves or a polished gold cover channel (similar to US3) to complement satin gold hinge leaves.

Special Finished Hinges

Price on Application

Hager Companies can supply unfinished material to selected finishers for special projects that require unusual colors, but will require that final assembly be complete by Hager Companies. Because of special non-removable metal coatings applied to all hinges during assembly, users are cautioned against attempting to refinish any Roton product.

Cannot paint 500 or 1200 series hinges.

Special Anodizing

Add 15% to the DBA hinges for black and gold

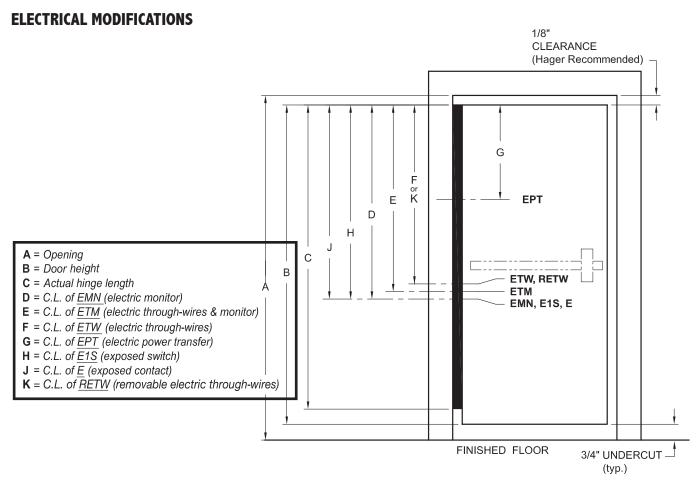
Roton hinges are available in various special colors including Black, Gold, and other special anodized finishes with fasteners to match. Example, specify "Black Anodized" or "Gold Anodized." All hinges ordered in special colors should be ordered at the same time to quarantee finish uniformity.

Other anodized colors by quotation only. Supply color chip for best match.

Special Holes Price on Application

Any hinge may be ordered with special hole locations for unusual frame or door locations. Please provide specification for each leaf.





For ease of ordering, Hager Companies has established standard locations for power transfer cutouts. All standard location dimensions are referenced from the top edge of the door to the centerline of the power transfer cutout. Please specify handing.

NOTE: Full surface hinges are not available with preps.

	Opening	Door Height	Actual Hinge Length	EMN	ETM	ETW	EPT	E1S	E	RETW
79 SD	80"	79-1/8"	78-11/16"	42-12"	41-1/4"	40"	24-1/2"	42-1/2"	42-1/2"	_
79 HD	80"	79-1/8"	78-11/16"	42-1/2"	40-5/8"	38-13/16"	24-1/2"	42-1/2"	42-1/2"	41-7/8"
83 SD	84"	83-18"	83"	46-1/2"	44-5/8"	42-3/4"	28-7/16"	46-1/2"	46-1/2"	_
83 HD	84"	83-1/8"	83"	46-1/2"	45-1/4"	44"	28-7/16"	46-1/2"	46-1/2"	44-1/16"
85 SD	86"	85-1/8"	85"	48-1/2"	47-1/4"	46"	30-7/16"	48-1/2"	48-1/2"	_
85 HD	86"	85-1/8"	85"	48-1/2"	46-5/8"	44-3/4"	30-7/16"	48-1/2"	48-1/2"	45-1/16"
95 SD	96"	95-1/8"	95-1/16"	59-3/4"	57-7/8"	56"	40-1/2"	59-3/4"	59-3/4"	_
95 HD	96"	95-1/8"	95-1/16"	59-3/4"	57-7/8"	56"	40-1/2"	59-3/4"	59-3/4"	56-1/2"
119 SD	120"	119-1/8"	119"	83-3/4"	81-7/8"	80"	64-3/8"	83-3/4"	83-3/4"	_
119 HD	120"	119-1/8"	119"	83-3/4"	81-7/8"	80"	64-3/8"	83-3/4"	83-3/4"	80"

SD = Standard Duty HD = Heavy Duty

ELECTRICAL MODIFICATIONS (CONTINUED)

	Von Duprin EPT 2 or EPT 10 Power Transfer Preparation	Exposed Electric Contacts	Exposed Electric Switches	Concealed Electric Through-W	Concealed Electric Monitoring	Concealed Electric Through-W and Monitoring	Removable Electric Through-W
Part Number	EPT	Е	E1S	ETW	EMN	ETM	RETW
780-045HD	•						
780-046HD	•						
780-053	•						
780-053HD	•						
780-054HD	•						
780-110HD			•				
780-111	•	•	•	•	•	•	
780-111HD	•	•	•	•	•	•	•
780-111LL	•	•	•	•	•	•	
780-112	•	•	•	•	•	•	
780-112HD	•	•	•	•	•	•	•
780-112LL	•	•	•	•	•	•	
780-124HD	•	•	•	•	•	•	•
780-124LL	•	•	•	•	•	•	
780-224	•	•	•	•	•	•	
780-224HD	•	•	•	•	•	•	•
780-224LL	•	•	•	•	•	•	
780-226HD	•	•	•	•	•	•	•
780-226LL	•	•	•	•	•	•	
780-235HD				•			
1200-600	•			•			
1200-650	•			•			

ADDITION TO LIST PRICE

Quick Connect \$35.15

Available for ETM, ETW, and RETW options. Top and bottom knockouts for standard conduit fittings.

Concealed Electric Monitoring (EMN)

\$265.75

- Miniature switch is incorporated into the frame leaf.
- Specify handing and the dimension from the top edge of the door to the centerline of the electric monitoring location.
- · Special Electric Modifications and EPT locations may require additional charges if screw holes have to be moved.
- Templates regarding location of monitoring switch available upon request.

Concealed Electric Through-Wire and Monitoring (ETM)

Electric Preparation

ETM-4	\$530.40
ETM-6	\$578.60
ETM-8	\$615.65
ETM-10	\$655.70

- All ETM have 28-Gauge continuous conductors.
- This combines the continuous electric conductors and the miniature switch to provide both power transfer and monitoring.
- Miniature switch is incorporated into the frame leaf.
- · Specify handing and the dimension from the top edge of the door to the centerline of each electric modification location.
- Templates regarding location of monitoring switch available upon request.

Concealed Electric Through-Wire (ETW)

• Electric Preparation

ETW-4	\$265.75
ETW-6	\$308.85
ETW-8	\$345.95
ETW-10	\$394.05
ETW-12	\$441.00

- All ETW have 28-Gauge continuous conductors.
- 12" per side required as a suffix.
- Cut out for prep 1/2" drilled hole.
- Transfers power discreetly from building to door hardware.
- Specify handing and the dimension from the top edge of the the door to the centerline of the electric through-wire location.
- Special electric modifications and EPT locations may require additional charges if screw holes have to moved. Contact Hager Customer Service for charges.
- Templates regarding location of through-wires available upon request.

Available on the following Roton Concealed profiles:

780-111
780-124
780-226
1200-600
780-112
780-224
780-235
1200-650

Hager Power Transfer or Von Duprin EPT-2 or EPT-10 Electric Power Transfer Preparation (EPT)

Concealed Leaf \$103.35
Half Surface \$62.25

- Hinge leaf cutout to accommodate power transfer device.
- Specify handing and the dimension from the top edge of the door to the centerline of the power transfer location.
- Special Electric Modifications and EPT locations may require additional charges if screw holes have to be moved.

MODIFICATIONS & ADDITIONS

ADDITION TO LIST PRICE

Lead Wire for Concealed Electric Hinges

Electric Preparation	<u>Per Foot</u>
4-wire hinge	\$9.15
6-wire hinge	\$13.35
8-wire hinge	\$16.65
10-wire hinge	\$18.85

- Standard wire leads are 12" per side
- Additional wire leads are available

Exposed Electric Switches (E1S)

\$92.85

- Miniature push button switch incorporated in hinge frame leaf to monitor position of the door.
- Three 12" wire leads.

7-112-1881

- Each monitoring hinge only needs one E1S Switch.
- Specify handing and the dimension from the top edge of the the door to the centerline of the electric switch location.
- Templates regarding location of contact switch available upon request.

Exposed Electric Contacts (E)

\$92.85

\$645.00 \$263.00

- Transfers power to door in closed position.
- Must have at least two (2) contacts to transfer power.
- Specify handing and the dimension from the top edge of the the door to the centerline of the electric contact location.
- Templates regarding location of contacts available upon request.

Removable	Electric	Through-Wire	(RETW)	Twelve	Wire
Removable	12 Wire	Module Only			

Removable 12 Wire Mod	iule Only	
Component	Finish	
7-102-1870	Clear	
7-112-1872	Dark Bronze	
7-112-1876	Gold	

Black

Removable Electric Through-Wire (RETW) Ten Wire Removable 10 Wire Module Only

Component	Finish
7-102-1860	Clear
7-112-1870	Dark Bronze
7-112-1875	Gold
7-112-1880	Black



Available on heavy duty concealed profiles:

- 780-111HD 780-124HD 780-226HD
- 780-112HD 780-224HD
- Transfers power discreetly from building to door hardware.
- Removable ETW module can be easily removed for adjustment for service.
- Templates regarding location of monitoring switch available upon request.
- Specify handing and the dimension from the top edge of the door to the centerline of the electric through-wire location.

ADDITION TO LIST PRICE

Mortar Box - 430

\$36.80

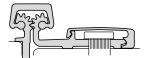
- Serves as a mortar shield.
- Overall dimensions: 9" (229 mm) length with tabs, 7" (178 mm) inside, 1-3/4" x 1-3/4" (45 mm x 45 mm) inside dimension.
- Galvanized steel 0.040" (1 mm)

Replacement Molding 780-052M

Hinge Lengths 79", 83", 85" 95" 119" \$38.20 \$44.15 \$52.70 Dark Bronze Anodized \$44.15

\$52.70 \$61.20

Replacement door leaf molding for: 780-053, 780-053HD, 780-054HD, 780-155HD, 780-057HD, 780-157, 780-157HD, 780-257HD, and 780-259HD.



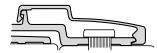


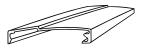
Replacement Molding 780-210M

Hinge Lengths 79", 83", 85" 95" 119" \$40.20 \$49.70 \$58.20 Dark Bronze Anodized \$49.70

\$58.20 \$65.80

Replacement door leaf molding for: 780-210, 780-210HD, 780-211, 780-211HD, 780-213HD, 780-045HD, and 780-046HD.





Replacement Molding 780-247M

Hinge Lengths 79", 83", 85" 95" \$34.15 \$40.20

\$49.70

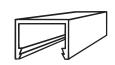
Dark Bronze Anodized **\$40.20**

\$49.70 \$58.20

Replacement frame leaf molding 780-157, 780-157HD, 780-257HD

Note: Replacment moldings for 780-052M and 780-210M are shipped in stock lengths for trimming in the field and furnished with Allen head set screw and wrench.





ADDITION TO LIST PRICE

Short Hinges \$22.10

Hinges shorter than 79" will be invoiced at the 79" price. Where two or more short hinges can be obtained from a standard length, pricing is based on the number of standard lengths utilized plus an assembly charge for each hinge.

Extra Long Hinges \$96.50

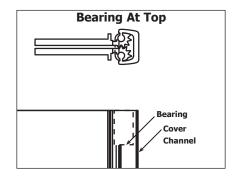
Hinges over 119" are manufactured as two separate lengths with a staggered joint for on-site connection. Hinge segments are taken from standard sizes for best economics in relation to the quantity required. Handing specifications are required to position the cuts inconspicuously and to finish symmetrical pairs in double door applications.

Custom Hole Pattern Price on Application

Any hinge may be ordered with special hole locations for unusual frame or door conditions. Please provide specifications for each leaf.

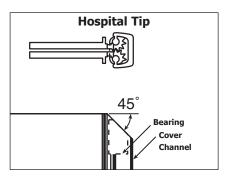
Bearing At Top \$41.15

This application allows for the bearing to be set at the very top of the cover channel. The cover channel is flush with the top of the geared hinge, preventing any obstructions or debris from being inserted in the top of the channel.



Hospital Tip \$121.35

Concealed models only can be prepared with a cover channel tapered at 45° angle at the top of the hinge. These are ideal for use in hospitals and correctional facilities to help provide a clean and safe environment.



ADDITION TO LIST PRICE

Tamper Resistant Hinge

\$142.40

This application is intended for use in hospital psychiatric areas and places of high security. The hinge is prepared with a hospital tip (concealed models only) and every other bearing is supplied with a set screw to lock against the inside of the cover channel for additional security.

Dutch Door Prep \$84.30

Furnished as continuous frame leaf, whole door leaf is cut to fit dutch door specified length.

Bearing Replacement Kit Clear and Dark Bronze

Standard Duty for 780 Series\$43.20Heavy Duty for 780 Series\$82.25Extra Heavy Duty for 1200 Series\$163.50

Marking Jigs \$202.55

Marking jigs are available to locate the centers of the top end frame screws. These jigs must be ordered at the same time as the hinges to ensure fabrication accuracy.



Center Punches \$9.15

Self-Centering center punches are available for #12 countersunk screws supplied. To make sure screw heads seat properly, accurate center punching is required.



MODIFICATIONS & ADDITIONS

ADDITION TO LIST PRICE

Shim Stock

1/16" x 1-1/2" Wide x 7' Long	\$31.65 each
1/8" x 1-1/2 Wide x 7' Long	\$44.15 each
1/16" x 1-1/2" Wide x 10' Long	\$66.75 each
1/8" x 1-1/2" Wide x 10' Long	\$93.85 each

For clearance between the door and frame which may be excessive, a continuous shim is helpful (applied behind the frame leaf only). Anodized aluminum extrusions are supplied with no holes.

Shipping Carton \$22.10 each

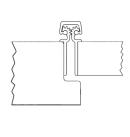
Extra shipping cartons are available for reshipping hinges in quantities of 2 or less.

Fasteners

All hinges are shipped with appropriate fasteners for metal doors and frames except where noted. **If wood screws are required, please specify on order, and wood screws will be substituted at no extra charge.** Bulk screws are packed separately.

Description	Part Numbers Clear	Dark Bronze	
#12 x 1-1/2" Flat Head Wood Screw	7-080-0050	7-080-0051	\$244.85/box of 500
#12-24 x 11/16" Self-Drilling Flat Head Screw	7-080-0070	7-080-0072	\$218.90/box of 500
#12-24 x 1/2" Spanner Head Machine Screw			\$1.95 each
#12-24 x 11/16" Drill Quick Torx Screw			\$1.95 each
#12-24 x 13/32" Self-Threading Screw (Clear or Bronz	ze)		\$0.80 each
#12-24 x 11/16" Self-Drilling Flat Head Screw (Clear of	or Bronze)		\$1.10 each
#12-24 x 11/16" Self-Drilling Pan Head Screw (Clear)			\$1.10 each
#12 x 1-1/2" Flat Head Wood Screw (Clear or Bronze)			\$1.10 each
Sexbolts			\$2.90 each

Note: Additional fasteners may be ordered as follows (add to the hinge list price before applying buying group discount).



Description		Finish	2016 List	Stock No.	Case Qty.
500-048 Concealed Leaf With Sheet Metal Screws 1-1/6" Nominal Leaf Thickness	24" (610 mm)	Clear	70.25	068560	1
		Dark Bronze	93.65	068046	
	36" (914 mm)	Clear	79.60	068521	1
		Dark Bronze	105.40	067971	
	48" (1219 mm)	Clear	93.65	068520	1
		Dark Bronze	117.10	067970	
	72" (1829 mm)	Clear	117.10	068509	1

24" (610 mm)

36" (914 mm)

48" (1219 mm)

72" (1829 mm)

24" (610 mm)

36" (914 mm)

48" (1219 mm)

72" (1829 mm)

79" (2007 mm)

83" (2108 mm)

Dark Bronze

Clear

140.45

70.25

93.65

82.00

105.40

93.65

117.10

117.10

140.45

70.25

93.65

82.00

105.40

93.65

117.10

117.10

140.45

151.50

209.85

151.50

067969

067967

067559

067964

067431

067961

067269

067959

067266

067944

067060

067940

067009

067939

067001

067938

067000

002378

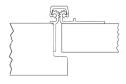
019142

060025

1

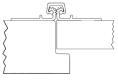
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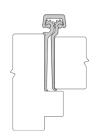




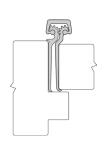
500-220
Full Surfac
With Sheet





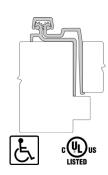


750-1	34
Concea	aled Leaf
With Ha	alf Drill Quick
and Ha	alf Wood Screws
1-3/4"	Interior Wood Door

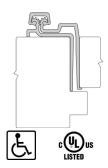


750-138
Concealed Leaf
With Half Drill Quick
and Half Wood Screws
1-3/8" Interior Wood Doo

Wood Door		Dark Bronze	209.85	014126	
	85" (2159 mm)	Clear	151.50	036922	8
		Dark Bronze	209.85	074623	
	95" (2413 mm)	Clear	192.60	013743	8
		Dark Bronze	254.90	021691	
	119" (3023 mm)	Clear	298.10	011935	6
		Dark Bronze	381.00	017503	
	79" (2007 mm)	Clear	154.10	063094	8
		Dark Bronze	203.25	021087	
uick Screws	83" (2108 mm)	Clear	154.10	071365	8
Wood Door		Dark Bronze	203.25	018414	
	85" (2159 mm)	Clear	154.10	026749	8
		Dark Bronze	203.25	084606	
	95" (2413 mm)	Clear	188.55	019624	8
		Dark Bronze	242.30	021998	
	119" (3023 mm)	Clear	290.80	019072	8
		Dark Bronze	364.40	-	



Doggintion		Finish	2016 List	Stock No.	Cana Otry
Description					Case Qty.
780-041HD	79" (2007 mm)	Clear	362.40	017704	6
Concealed Leaf		Dark Bronze	476.25	161734	
Heavy Duty 1-3/4" Door Swing Clear Action	83" (2108 mm)	Clear	362.40	014172	6
1-3/4 Door Swing clear Action		Dark Bronze	476.25	023946	
	85" (2159 mm)	Clear	362.40	022882	6
		Dark Bronze	476.25	170751	
	95" (2413 mm)	Clear	444.80	009009	6
		Dark Bronze	585.80	167333	
	119" (3023 mm)	Clear	663.85	077180	2
		Dark Bronze	873.20	157744	
780-041LL	79" (2007 mm)	Clear	373.20	-	6
Concealed Leaf		Dark Bronze	488.15	-	



		Dark Bronze	873.20	157744	
780-041LL	79" (2007 mm)	Clear	373.20	-	6
Concealed Leaf With Half Drill Quick and Half Wood Screws 1-3/4" Door Lead Lined Heavy Duty Profile Only Swing Clear Action		Dark Bronze	488.15	-	
	83" (2108 mm)	Clear	373.20	022711	6
		Dark Bronze	488.15	-	
	85" (2159 mm)	Clear	373.20	-	6
		Dark Bronze	488.15	-	
	95" (2413 mm)	Clear	456.75	170193	6
		Dark Bronze	597.75	-	
	119" (3023 mm)	Clear	674.75	-	2
		Dark Bronze	885.10	-	

Clear

Dark Bronze

Clear

Dark Bronze

Clear

Dark Bronze

425.45

568.75

425.45

568.75

425.45

568.75

004046

065575

152230

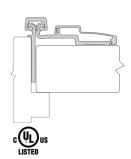
161260

165869

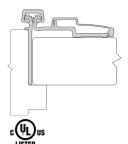
79" (2007 mm)

83" (2108 mm)

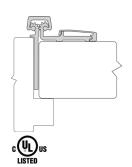
85" (2159 mm)



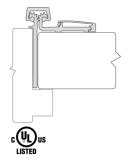




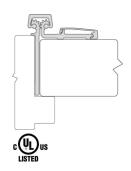
	95" (2413 mm)	Clear	523.00	104689	4
		Dark Bronze	699.50	168059	
	119" (3023 mm)	Clear	779.15	163204	2
		Dark Bronze	1,040.60	161207	
780-046HD	79" (2007 mm)	Clear	457.95	163916	4
Half Surface Heavy Duty		Dark Bronze	600.65	-	
	83" (2108 mm)	Clear	457.95	026032	4
		Dark Bronze	600.65	149561	
	85" (2159 mm)	Clear	457.95	158054	4
		Dark Bronze	600.65	-	
	95" (2413 mm)	Clear	561.50	025211	4
		Dark Bronze	746.65	162657	
	119" (3023 mm)	Clear	838.85	-	2
		Dark Bronze	1,111.55	-	

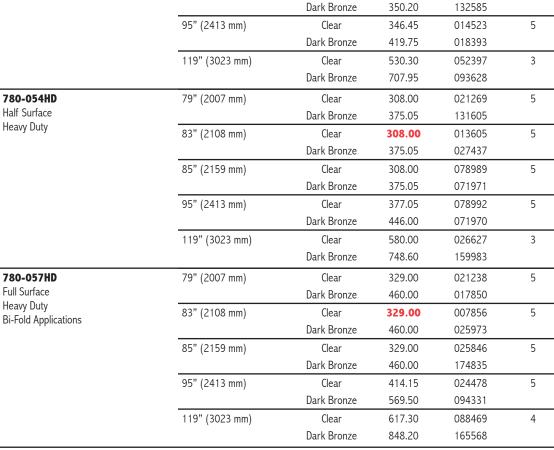
 

	Finish	2016 List	Stock No.	Case Qty.
79" (2007 mm)	Clear	222.55	056995	5
	Dark Bronze	306.00	163993	
83" (2108 mm)	Clear	222.55	001927	5
	Dark Bronze	306.00	014876	
95" (2413 mm)	Clear	275.70	010247	5
	Dark Bronze	373.00	009044	
	83" (2108 mm)	79" (2007 mm) Clear	79" (2007 mm) Clear 222.55 Dark Bronze 306.00 83" (2108 mm) Clear 222.55 Dark Bronze 306.00 95" (2413 mm) Clear 275.70	79" (2007 mm) Clear Dark Bronze 222.55 Dark Bronze 056995 Dark Bronze 83" (2108 mm) Clear Clear Clear Clear Dark Bronze 222.55 Dark Bronze 001927 Dark Bronze 95" (2413 mm) Clear Clea



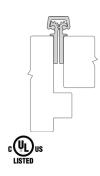
780-053HD Half Surface Heavy Duty	79" (2007 mm)	Clear	282.00
		Dark Bronze	350.20
	83" (2108 mm)	Clear	282.00
		Dark Bronze	350.20
	85" (2159 mm)	Clear	282.00
		Dark Bronze	350.20
	95" (2413 mm)	Clear	346.45
		Dark Bronze	419.75
	119" (3023 mm)	Clear	530.30
		Dark Bronze	707 95

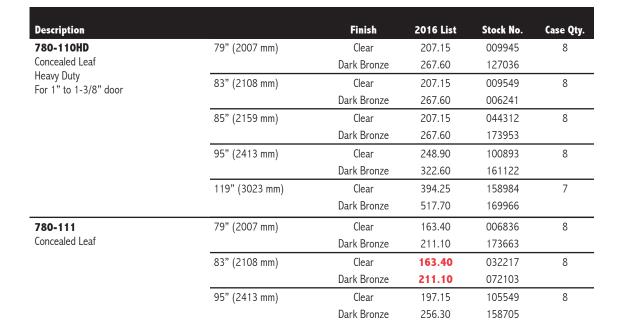


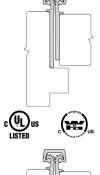


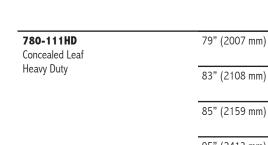


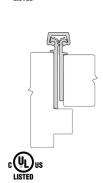
()				_
	Dark Bronze	460.00	174835	
95" (2413 mm)	Clear	414.15	024478	5
	Dark Bronze	569.50	094331	
119" (3023 mm)	Clear	617.30	088469	4
	Dark Bronze	848.20	165568	











	85" (2159 mm)	Clear	203.25	011544	8
		Dark Bronze	262.90	157970	
	95" (2413 mm)	Clear	244.35	004806	8
		Dark Bronze	316.05	066260	
	119" (3023 mm)	Clear	390.45	084943	7
		Dark Bronze	508.50	159150	
780-111LL	79" (2007 mm)	Clear	217.80	128464	8
Concealed Leaf		Dark Bronze	276.85	-	
With Half Drill Quick and Half Wood Screws	83" (2108 mm)	Clear	217.80	075316	8
Lead Lined		Dark Bronze	276.85	158738	
Heavy Duty Profile Only	85" (2159 mm)	Clear	217.80	-	8
		Dark Bronze	276.85	-	
	95" (2413 mm)	Clear	258.90	175965	8
		Dark Bronze	329.90	163527	
	119" (3023 mm)	Clear	400.95	-	7
		Dark Bronze	523.00	-	

Clear

Dark Bronze

Clear

Dark Bronze

203.25

262.90

203.25

262.90

084020

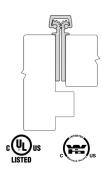
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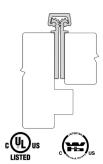
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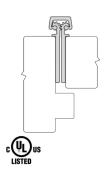
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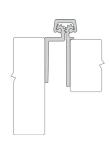
	Finish	2016 List	Stock No.	Case Qty.
79" (2007 mm)	Clear	137.55	016302	8
	Dark Bronze	177.70	018354	
83" (2108 mm)	Clear	137.55	048046	8
	Dark Bronze	177.70	048047	
95" (2413 mm)	Clear	168.50	048048	7
	Dark Bronze	219.70	019047	
	83" (2108 mm)	79" (2007 mm) Clear	79" (2007 mm) Clear Dark Bronze 137.55 83" (2108 mm) Clear Clear Clear Dark Bronze 177.70 95" (2413 mm) Clear Clea	79" (2007 mm) Clear Dark Bronze 137.55 016302 018354 83" (2108 mm) Clear Clear 137.55 048046 048047 95" (2413 mm) Clear Clear 168.50 048048



780-112	83" (2108 mm)	Clear	123.80	158844	8
Concealed Leaf Case Pack w/ Drill Quick Screws Must Order Case Quantity	65 (2106 IIIII)	Dark Bronze	159.95	159092	0
780-112HD	79" (2007 mm)	Clear	170.85	011666	8
Concealed Leaf		Dark Bronze	220.80	034272	
Single Pack w/ Drill Quick Screws	83" (2108 mm)	Clear	170.85	048056	8
		Dark Bronze	220.80	048057	
	85" (2159 mm)	Clear	170.85	070633	8
		Dark Bronze	220.80	011667	
	95" (2413 mm)	Clear	205.85	048564	7
		Dark Bronze	271.45	048565	
	119" (3023 mm)	Clear	331.15	048058	7
		Dark Bronze	436.40	159038	
780-112HD	83" (2108 mm)	Clear	156.40	154078	8
Concealed Leaf Case Pack w/ Drill Quick Screws Must Order Case Quantity		Dark Bronze	198.75	167461	
780-112LL	79" (2007 mm)	Clear	188.45	050685	8
Concealed Leaf		Dark Bronze	244.00	-	
With Half Drill Quick and Half Wood Screws	83" (2108 mm)	Clear	188.45	048068	8



and Half Wood Screws	05 (2100 11111)	cicai	100.43	040000	O
Lead Lined		Dark Bronze	244.00	162642	2642 3194 8 - 1432 8 7945 2221 7
Heavy Duty Profile Only	85" (2159 mm)	Clear	188.45	023194	
		Dark Bronze	244.00		
	95" (2413 mm)	Clear	227.05	001432	8
		Dark Bronze	291.05	157945	
	119" (3023 mm)	Clear	362.15	162221	7
		Dark Bronze	473.30	-	



Description		Finish	2016 List	Stock No.	Case Qty.
780-113HD Concealed Leaf Heavy Duty "Safety Hinge" When Used Without Frame Stop	79" (2007 mm)	Clear	342.55	008721	6
		Dark Bronze	460.60	086160	
	83" (2108 mm)	Clear	342.55	063578	6
		Dark Bronze	460.60	014496	
	85" (2159 mm)	Clear	342.55	092239	6
		Dark Bronze	460.60	086847	
	95" (2413 mm)	Clear	561.50	063579	6

Dark Bronze

Clear

Clear

Dark Bronze

Clear

Dark Bronze

Clear

630.50

696.85

418.15

552.20

622.55

224.00

208.00

012154

063577

084403

117204

152433

5

5

8

8



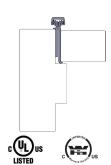
		Dark Bronze	823.65
780-114HD Concealed Leaf Heavy Duty Center Hung Applications	79" (2007 mm)	Clear	339.80
		Dark Bronze	450.10
	83" (2108 mm)	Clear	339.80
		Dark Bronze	450.10
	85" (2159 mm)	m) Clear	
		Dark Bronze	450.10

95" (2413 mm)

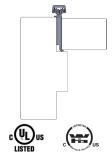
119" (3023 mm)

95" (2413 mm)

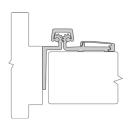
119" (3023 mm)



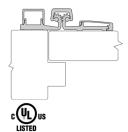
		Dark Bronze	823.00	-
780-124HD	79" (2007 mm)	Clear	172.00	161228
Concealed Leaf Heavy Duty profile only Single Pack w/ Drill Quick Screws		Dark Bronze	224.00	169197
	83" (2108 mm)	Clear	172.00	152428
		Dark Bronze	224.00	166643
	85" (2159 mm)	Clear	172.00	164175



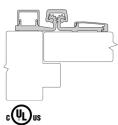
		Dark Bronze	250.00	166645	
	119" (3023 mm)	Clear	338.00	164231	7
		Dark Bronze	443.00	-	
780-124LL	79" (2007 mm)	Clear	194.00	-	8
Concealed Leaf		Dark Bronze	250.00	-	
Heavy Duty profile only With half drill quick	83" (2108 mm)	Clear	194.00	164677	8
and Half Wood Screws		Dark Bronze	250.00	-	
Lead Lined	85" (2159 mm)	Clear	194.00	-	8
		Dark Bronze	250.00	-	
	95" (2413 mm)	Clear	233.00	-	7
		Dark Bronze	294.00	-	
	119" (3023 mm)	Clear	370.00	-	7
		Dark Bronze	480.00	-	



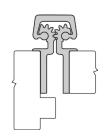
Description		Finish	2016 List	Stock No.	Case Qty.
780-155HD	79" (2007 mm)	Clear	359.80	016603	5
Half Surface		Dark Bronze	484.50	128736	
Heavy Duty Center Hung and Egress Conversions	83" (2108 mm)	Clear	359.80	068088	5
center riving and Egress conversions		Dark Bronze	484.50	068371	
	85" (2159 mm)	Clear	359.80	018276	5
		Dark Bronze	484.50	046665	
	95" (2413 mm)	Clear	441.45	063096	5
		Dark Bronze	597.30	056566	



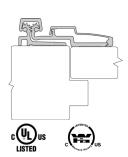
	119" (3023 mm)	Clear	657.05	078745	2
		Dark Bronze	888.00	062632	
780-157	79" (2007 mm)	Clear	211.60	022092	5
Full Surface		Dark Bronze	285.80	049196	
Frame Face Dimension Limitations	83" (2108 mm)	Clear	211.60	048049	5
		Dark Bronze	285.80	063070	
	95" (2413 mm)	Clear	258.70	021262	5
		Dark Bronze	349.05	009045	



780-157HD	79" (2007 mm)	Clear	262.20	022028	5
Full Surface		Dark Bronze	319.70	084386	
Heavy Duty Frame Face Dimension	83" (2108 mm)	Clear	262.20	048059	5
Limitations		Dark Bronze	319.70	062422	
	85" (2159 mm)	Clear	262.20	019546	5
		Dark Bronze	319.70	035156	
	95" (2413 mm)	Clear	314.55	048060	



	95" (2413 mm)	Clear	314.55	048060	5
		Dark Bronze	384.05	010547	
	119" (3023 mm)	Clear	516.25	099644	2
		Dark Bronze	672.05	037141	
780-208HD	79" (2007 mm)	Clear	247.00	086976	7
Concealed Leaf		Dark Bronze	316.60	099629	
Heavy Duty Bi-Fold Applications	83" (2108 mm)	Clear	247.00	015254	7
DI-I OIG APPIICATIONS		Dark Bronze	316.60	-	
	85" (2159 mm)	Clear	247.00	040232	7
		Dark Bronze	316.60	-	
	95" (2413 mm)	Clear	270.80	095067	7
		Dark Bronze	389.00	-	
	119" (3023 mm)	Clear	404.20	139585	5
		Dark Bronze	580.00	018910	







780-210HD	79" (2007 mm)	Clear	258.20	017046	6
Full Surface		Dark Bronze	313.90	017037	
Heavy Duty	83" (2108 mm)	Clear	258.20	048061	6
		Dark Bronze	313.90	048062	
	85" (2159 mm)	Clear	258.20	024124	6
		Dark Bronze	313.90	071974	
	95" (2413 mm)	Clear	304.75	048063	6
		Dark Bronze	374.95	046722	

Clear

Dark Bronze

504.80

565.70

025722

000304

116360

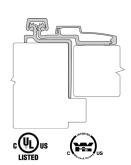
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120382

162789

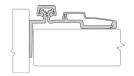
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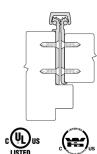


780-211HD	79" (2007 mm)	Clear	503.15
Half Surface Heavy Duty Frame Leaf Wrap-Around		Dark Bronze	661.10
	83" (2108 mm)	Clear	503.15
Reinforcement for Damaged Frames		Dark Bronze	661.10
Š	85" (2159 mm)	Clear	503.15

119" (3023 mm)



		Dark Bronze	661.10	160923	
	95" (2413 mm)	Clear	619.25	115949	4
		Dark Bronze	813.65	-	
	119" (3023 mm)	Clear	922.50	158595	2
		Dark Bronze	1,212.45	-	
780-213HD	79" (2007 mm)	Clear	476.55	023958	4
Half Surface		Dark Bronze	629.20	107818	
Heavy Duty Center Hung Doors	83" (2108 mm)	Clear	476.55	007660	4
Center Hung Doors		Dark Bronze	629.20	056801	
	85" (2159 mm)	Clear	476.55	044343	4
		Dark Bronze	629.20	147623	
	95" (2413 mm)	Clear	584.75	012731	4
		Dark Bronze	773.85	038555	
	119" (3023 mm)	Clear	871.40	010262	2
		Dark Bronze	1,153.35	147624	



Description		Finish	2016 List	Stock No.	Case Qty.
780-224	79" (2007 mm)	Clear	139.25	019803	7
Concealed Leaf		Dark Bronze	181.70	004347	
1-3/4" Doors Single Pack w/ Drill Quick Screws	83" (2108 mm)	Clear	139.25	048052	7
Single Fack W/ Dilli Quick Screws		Dark Bronze	181.70	071879	
	95" (2413 mm)	Clear	174.90	048053	7
		Dark Bronze	226.00	071878	

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780-224HD

780-224	83" (2108 mm)	Clear	125.30	160135	7
Concealed Leaf		Dark Bronze	-	-	
1-3/4" Doors					
Case Pack w/ Drill Quick Screws					
Must Order Case Quantity					

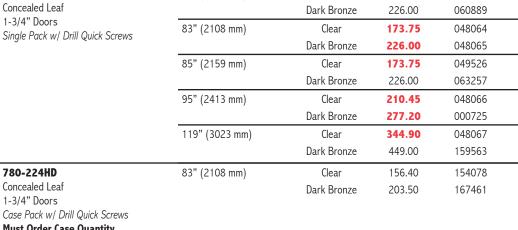
Clear

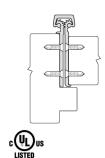
173.75

059400

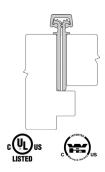
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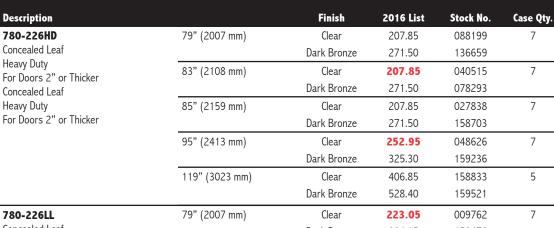
79" (2007 mm)





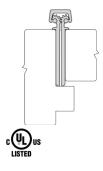
Case Pack w/ Drill Quick Screws Must Order Case Quantity					
780-224LL	79" (2007 mm)	Clear	198.70	073096	7
Concealed Leaf		Dark Bronze	253.60	084063	
1-3/4" Doors Lead Lined With Half Drill Quick	83" (2108 mm)	Clear	198.70	013673	7
and Half Wood Screws		Dark Bronze	253.60	016303	
Heavy Duty Profile Only	85" (2159 mm)	Clear	198.70	083466	7
		Dark Bronze	253.60	-	
	95" (2413 mm)	Clear	240.25	113157	7
		Dark Bronze	295.80	158591	
	119" (3023 mm)	Clear	377.90	172408	5
		Dark Bronze	487.15	-	



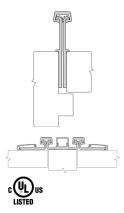


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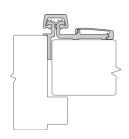
7



780-226LL	79" (2007 mm)	Clear	223.05	009762	7
Concealed Leaf		Dark Bronze	284.15	158476	
For Lead Lined Doors 2" or Thicker With Half Drill Quick	83" (2108 mm)	Clear	223.05	100252	7
and Half Wood Screws		Dark Bronze	284.15	-	
Heavy Duty Profile Only	85" (2159 mm)	Clear	223.05	-	7
		Dark Bronze	284.15	-	
	95" (2413 mm)	Clear	269.60	158010	7
		Dark Bronze	324.00	165412	
	119" (3023 mm)	Clear	423.50	068684	5
		Dark Bronze	545.55	158475	
780-235HD	83" (2108 mm)	Clear	478.60	052841	1
Concealed Leaf Heavy Duty Wide Throw		Dark Bronze	626.50	053517	
	95" (2413 mm)	Clear	590.70	052846	1
wide Illiow		Dark Bronze	752.60	053522	



780-257HD Full Surface Heavy Duty Double hinge for hanging two doors from a fixed mullion.	79" (2007 mm)	Clear	500.45	-	2
		Dark Bronze	687.60	-	
	83" (2108 mm)	Clear	500.45	081899	2
		Dark Bronze	687.60	159250	
	85" (2159 mm)	Clear	500.45	112767	2
		Dark Bronze	687.60	158749	
	95" (2413 mm)	Clear	615.90	028146	2
		Dark Bronze	845.50	161153	
	119" (3023 mm)	Clear	918.40	162543	2
		Dark Bronze	1,260.25	-	



Description		Finish	2016 List	Stock No.	Case Qty.
780-259HD Half Surface Heavy Duty For 3/4" or 1" door	79" (2007 mm)	Clear	309.40	026034	5
		Dark Bronze	430.15	103994	
	83" (2108 mm)	Clear	309.40	026035	5
		Dark Bronze	430.15	147628	
	85" (2159 mm)	Clear	309.40	147629	5
		Dark Bronze	430.15	147630	
	95" (2413 mm)	Clear	370.45	045733	5
		Dark Bronze	528.95	147631	

Clear

Dark Bronze

Clear

Dark Bronze

Clear

Dark Bronze

Clear

Dark Bronze

Clear

568.75

787.75

357.20

485.25

357.20

485.25

357.20

485.25

439.40

3

4

4

4

147632

027583

010212

019206

047819

057968

061937

038063

047821

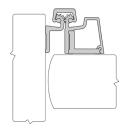
119" (3023 mm)

79" (2007 mm)

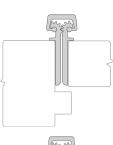
83" (2108 mm)

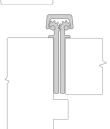
85" (2159 mm)

95" (2413 mm)



780-300HD
Half Surface
Heavy Duty
Center Hung Applicatio





		Dark Bronze	596.10	047822	
	119" (3023 mm)	Clear	654.45	015052	2
		Dark Bronze	889.35	011244	
1200-600XHD Concealed Leaf Extra Heavy Duty For doors from 1-3/4" to 2-3/8" thick.	83" (2108 mm)	Clear	996.50	000590	1
		Dark Bronze	1,394.65	028601	
	95" (2413 mm)	Clear	1,129.15	004040	1
		Dark Bronze	1,527.25	065709	
	119" (3023 mm)	Clear	1,261.95	090770	1
		Dark Bronze	1,660.00	107206	
1200-650XHD Concealed Leaf Extra Heavy Duty For doors 2-3/8" thick or thicker.	83" (2108 mm)	Clear	1,328.25	090353	1
	(2.00)	Dark Bronze	1,726.40	135473	•
	95" (2413 mm)	Clear	1,461.00	090439	1
		Dark Bronze	1,859.05	108903	
	119" (3023 mm)	Clear	1,593.70	090440	1
		Dark Bronze	1,991.85	044852	