



# Illinois Department of Transportation

Division of Public and Intermodal Transportation  
100 West Randolph Street / Suite 6-600 / Chicago, Illinois / 60601

December 12, 2013

Mr. Joseph C. Szabo  
FRA Administrator  
Federal Railroad Administration  
U.S. Department of Transportation  
1200 New Jersey Avenue, S.E.  
Washington, D.C. 20590

Re: The Illinois Department of Transportation's Request for a Buy America Waiver for Adjustable Hinges

Dear Administrator Szabo:

The Illinois Department of Transportation (IDOT) hereby requests a waiver from the Federal Railroad Administration (FRA) regarding the Buy America requirements contained in 49 U.S.C. 24405(a). This request pertains to a hinge which is part of the pedestrian swing gate that integrates the right-of-way fencing and railroad crossing warning devices to provide improved pedestrian safety at grade crossings.

As part of the Chicago-St. Louis High Speed Rail Corridor Program (Program), IDOT is providing improvements at all at-grade public and private crossings. The Program also seeks to close or consolidate crossings where practical. Pedestrian swing gates will be utilized at all at-grade highway-rail crossings where pedestrian facilities are present. With the exception of one component, the pedestrian swing gate is manufactured in the U.S. The component that is not manufactured in the US is the self-closing, force adjustable hinge (Hinge). It is IDOT's position that the adjustable hinge is required for safe gate operations. A similar hinge cannot be located in the United States. A detailed justification for IDOT's waiver request is set forth below.

## 1. The Illinois High Speed Rail Improvement Program

In December 2010<sup>1</sup>, IDOT and FRA entered into cooperative agreements to allow IDOT to complete the activities necessary to implement high speed passenger rail service along the Union Pacific Railroad's (UPRR) Chicago to St. Louis corridor (Corridor). Currently, passenger trains along this Corridor operate at a maximum speed of 79 miles per hour (mph), except for 110 mph operation between Dwight and Pontiac. Implementation of the Program will permit passenger trains to operate at speeds of up to 110 mph for extended sections of the Corridor. The reduced travel time resulting from these improvements will enhance the marketability of intercity passenger rail and will support a more regionally and modally balanced transportation system.

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<sup>1</sup> The agreements are called the Corridor Improvement Program grant, FR-HSR-0015-11-01-02 (which has been amended twice) and the Supplemental Corridor Improvement Program (FR-HSR-0113-12-01-00), collectively the Grants.

The Program consists of six tasks encompassing infrastructure improvements, station improvements, acquiring rolling stock, communications, and program management. The work is being performed entirely in Illinois on UPRR's Joliet and Springfield subdivisions between Joliet and the East St. Louis area. The subject of this letter pertains to infrastructure improvements for at-grade highway-rail crossings. The Grants for the Chicago-St. Louis High Speed Rail Corridor development total \$1.33 billion.

## 2. Pedestrian Swing Gates & Crossing Safety

In the IDOT Program, pedestrian swing gates will be utilized for pedestrian safety to integrate right-of-way fencing, four quadrant gates, and pedestrian gates. With the activation of a crossing warning system by an approaching train, the swing gate will provide pedestrians an escape route to exit the crossing without being restricted by the lowered pedestrian gates.

## 3. Description of End Products

Each pedestrian swing gate is comprised of the swing gate, the gate post, the stop post, two signs, two Hinges, and associated hardware. As illustrated in the enclosed exhibits, the pedestrian swing gate integrates the right-of-way fencing with the railroad grade crossing warning system.

Program bid documents will require the selected contractor to furnish and install a complete escape pad pedestrian crossing gate assembly. The contractor will procure the gate leaf, gate posts and Hinge from an approved supplier.

Approximately 150 sidewalks/paths are present along the Corridor, at stand-alone pedestrian crossings and highway-rail crossings. This will require 300 pedestrian swing gates for a total of 600 self-closing, adjustable Hinges (two Hinges are required for each gate). The hinges and attachment brackets cost about \$315 each; the total cost for 600 Hinges is approximately \$190,000.

## 4. Non-US Components

For the pedestrian swing gates and related equipment, the stop post is manufactured in the United States and includes a gate stop attachment. The swing gate is also manufactured in the United States and includes metal signs with fasteners, attached to both sides of the swing gate. The gate post is manufactured in the United States. The two Hinges are attached to both the gate post and the swing post with bracket hardware made in the United States. Only the Hinges are non-US components, manufactured in Italy. Final assembly and installation of these items, including the Hinges, will take place at the work location in Illinois.

IDOT conducted an extensive review with its fencing manufacturer Ameristar and others in the industry as to the availability of suitable hinges from the U.S. market. The specification for the Hinge called for a self-closing, force adjustable hinge that could withstand the variable weather conditions in Illinois. The high strength aluminum SureClose Hinge by D&D Technology was ultimately selected. The SureClose Hinge is a patented product. It is a gate hinge with closer hydraulics which provides for an adjustable self-closing gate speed. Each hinge is paired with the required bracket in California as it is a component of the

gate/fence. Final assembly is typically performed in the field. The hinge is a component of the gate; it is considered gate hardware.

An equal Hinge made in America is not available. However, with the need to complete a demonstration segment on the Corridor in October 2012 and concerns regarding the Buy America provisions, a different industrial style hinge with spring/gravity close was installed and used at three crossings in the Village of Odell, Illinois. The Illinois Commerce Commission (ICC) subsequently inspected these American-made hinges and determined that the closure force was too strong and could not be adjusted sufficiently to eliminate the possibility of injury to pedestrians. Based on the ICC's inspection, the American manufactured hinge was rejected for future use.

The ICC has installed the SureClose Hinge at a crossing in the City of Chicago that has served as the test location for all crossings on the Corridor. The ICC found that the SureClose Hinge provided for the greatest safety to pedestrians while meeting all the operational, installation, and maintenance requirements. A detailed discussion of the process used in investigating a potential American hinge supplier is attached.

#### 6. Request for a Waiver

The Hinges on the pedestrian swing gates represent a small cost (approximately \$190,000 or 0.01% of the total \$1.5 billion program cost) for the overall Corridor. More importantly, the Hinge is a critical component to the overall pedestrian warning systems to provide improved safety for pedestrians in the Corridor. With all of the safety measures being implemented on the Corridor it is imperative that all components including the hinges provide for reliable and safe operation.

Pursuant to Section 24405(a), the FRA may waive application of the Buy America requirement if it finds that one or more of the following apply:

1) applying the statute would be inconsistent with the public interest; 2) the steel, iron and goods produced in the US are not produced in a sufficient and reasonably available amount or are not of a satisfactory quality; 3) rolling stock or power train equipment cannot be bought and delivered in the US within a reasonable time; or 4) including domestic material will increase the cost of the overall project by more than 25 percent.

It is the Program's position that two waiver exceptions apply to the Hinges: applying the statute would be inconsistent with public policy and parts produced in the U.S. are not available.

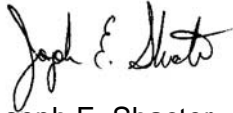
Applying the Buy America statute would be inconsistent with the public interest. The American-made hinges available do not meet the operational requirements and create safety concerns. The US-made industrial style hinge was found to require excess force for many pedestrians to operate and lacked an adjustment feature for future maintenance and safe operations. Therefore, a waiver pursuant to exception one, above, is requested for the SureClose Hinge by D&D Technology.

U.S. manufactured hinges to satisfy the safety needs of the Program are not currently available. The ICC concluded that the one hinge that is U.S. produced (the type used by Metrolink in California) did not comply with the safety requirements needed on the gate. A search for another U.S. manufactured hinge was not fruitful. As the attachment to this letter indicates, an exhaustive search was conducted to find a U.S. produced hinge. As such, no U.S. produced hinge to meet the Program's needs is available.

7. Conclusion

IDOT understands the importance of domestically produced goods and is committed to procuring Buy America compliant end products for the High Speed Rail Program. However, due to the unique circumstances surrounding the components of the end products of the pedestrian swing gates, a waiver is needed. Thank you for considering our request. If you need additional information, please contact me at 312-793-2116.

Sincerely,

A handwritten signature in black ink that reads "Joseph E. Shacter". The signature is written in a cursive style with a large initial "J" and "S".

Joseph E. Shacter  
Director  
Division of Public and Intermodal Transportation

Attachment



## **High Speed Rail – Chicago to St. Louis**

Summary of Attachments - Buy America Waiver for Adjustable Hinges  
December 12, 2013

- Design Guidance – Pedestrian Treatments – High Speed Rail (2 pages)
- Summary of Research Performed to Identify an American-Made Hinge for the Pedestrian Swing Gates (1 page)
- SureClose Product Brochure (5 pages)
- Product Guideline Specifications (8 pages)
- Cadd drawing of Hinge (2 pages)

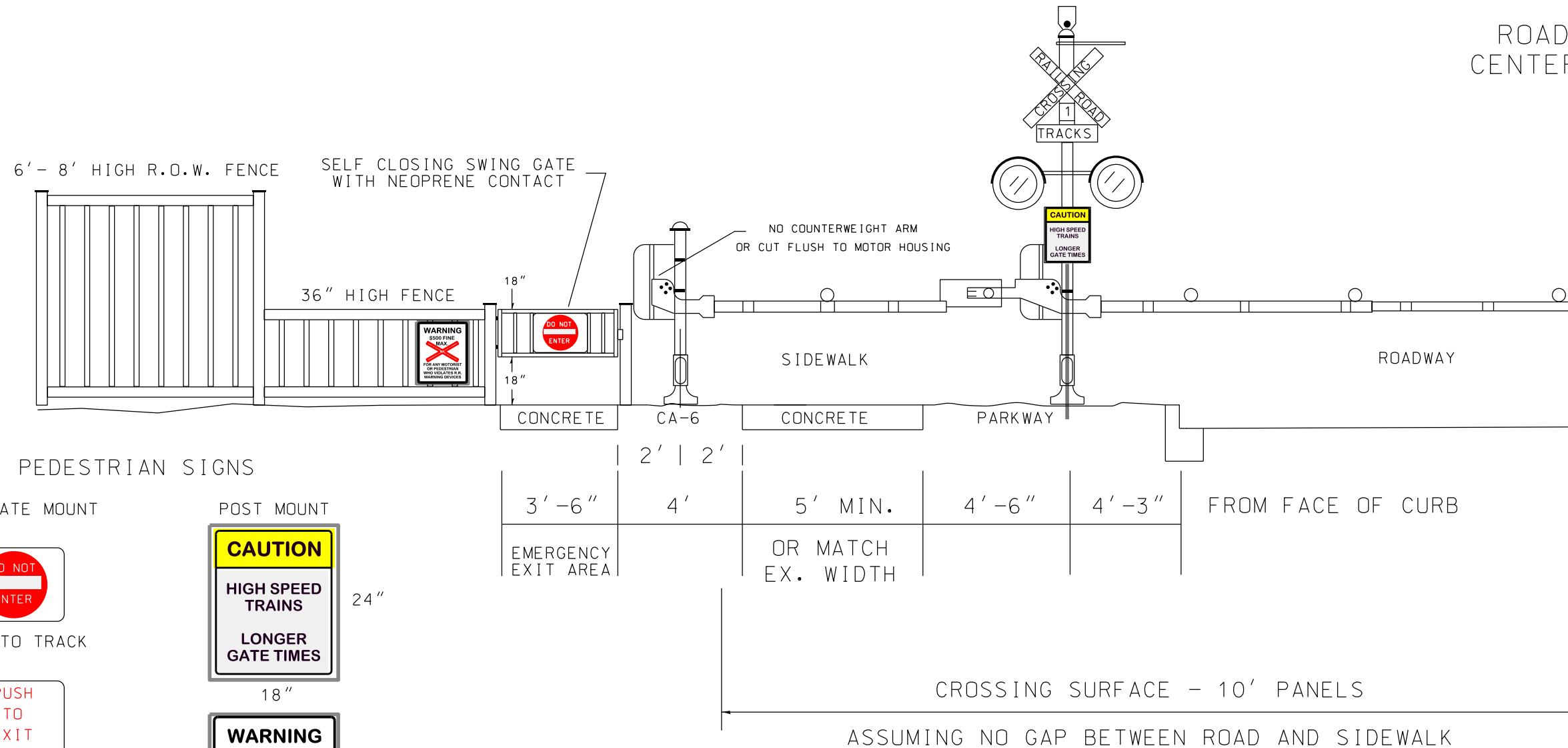
# PEDESTRIAN VIEW AT EXIT GATE - TRAIN APPROACHING

## CONCEPTUAL CROSS SECTION (NTS)

**NOTES:**

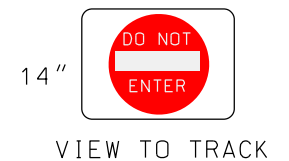
1. DESIGN TO COMPLY WITH MUTCD
2. ESCAPE AREA DESIGN- COMPLY WITH CHAPTER 4: "ACCESSIBLE ROUTES" OF ADA AND ABA GUIDELINES AMENDED AUGUST 5, 2005, OR LATEST REVISION
3. DETECTABLE WARNING - TRUNCATED DOMES PER CHAPTER 7: "COMMUNICATION ELEMENTS AND FEATURES," ADA AND ABA GUIDELINES
4. \*FINAL DIMENSIONS DETERMINED IN FIELD DUE TO VARIABILITY OF LOCATIONS \*

ROADWAY  
CENTERLINE

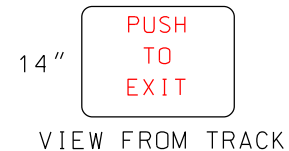


**PEDESTRIAN SIGNS**

SWING GATE MOUNT



POST MOUNT



FENCE MOUNT

	2'   2'					
3'-6"	4'	5' MIN.	4'-6"	4'-3"	FROM FACE OF CURB	
EMERGENCY EXIT AREA	OR MATCH EX. WIDTH					

CROSSING SURFACE - 10' PANELS  
ASSUMING NO GAP BETWEEN ROAD AND SIDEWALK

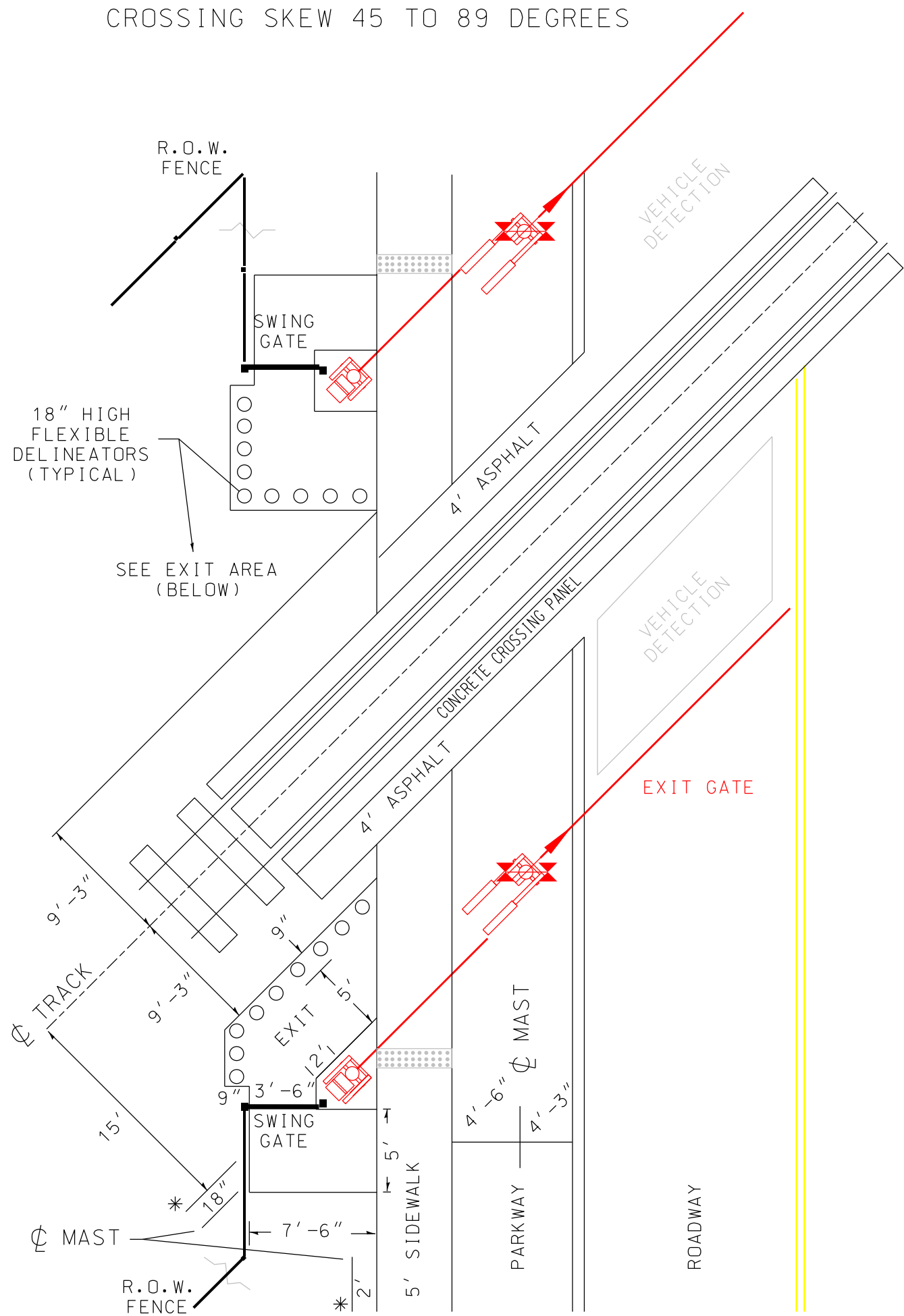
REVISION DATE: NOV. 1, 2012

ILLINOIS COMMERCE COMMISSION

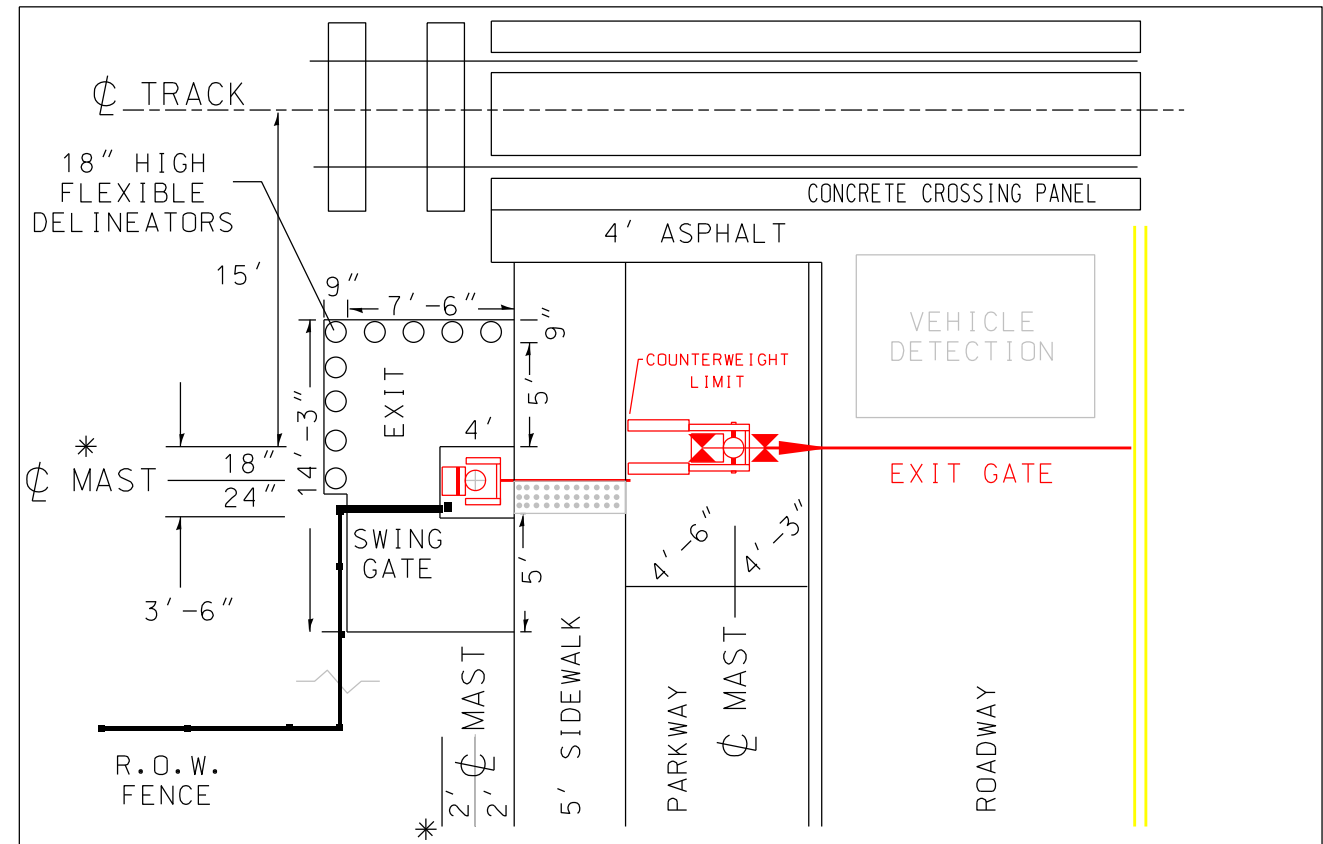
DESIGN GUIDANCE  
PEDESTRIAN TREATMENTS  
HIGH SPEED RAIL - UP

PAGE 1 OF 2

CROSSING SKEW 45 TO 89 DEGREES



90 DEGREE



RECOMMENDED CONSTRUCTION SEQUENCE - WARNING DEVICES INSTALLED FIRST, PARALLEL TO TRACKS

1. LOCATE ROADWAY GATE 15 FT FROM CENTERLINE OF TRACK
2. CONDUIT (2) TO ACCOMMODATE ROADWAY AND PEDESTRIAN GATES
3. LAYOUT SIDEWALK
  - A. ALLOW CLEARANCE FROM ROADWAY COUNTERWEIGHTS AND ARMS
  - B. 4'-6" CENTERLINE FOUNDATION TO END OF COUNTERWEIGHTS
  - C. 18" CENTERLINE FOUNDATION TO OUTER ARMS
4. LOCATE PEDESTRIAN GATE 16'-6" FROM CENTERLINE OF TRACK
  - A. ALLOW CLEARANCE FOR GATE ARM BRACKET (24" FOUNDATION CENTERLINE TO SIDEWALK - TYPICAL)
  - B. LOCATE BACK OF MECHANISM/DOOR - 2' FROM FOUNDATION CENTERLINE
  - C. USE PEDESTRIAN GATE MECH WITHOUT COUNTERWEIGHT ARM, OR CUT FLUSH TO MOTOR HOUSING TO ELIMINATE CONFLICT WITH SWING GATE
  - D. INSTALL SONOTUBE FOR SWING GATE CONTACT POST TO ELIMINATE POTENTIAL DAMAGE TO SIGNAL CABLE DURING FENCE INSTALLATION
5. LAYOUT EXIT AREA; FRAME AND POUR SIDEWALK AND EXIT AREA
  - A. PROVIDE 3'-6" x 4' CA-6 "ISLAND"
  - B. \* USE CENTERLINE OF PED GATE MAST TO LOCATE EXIT EDGES \*
6. INSTALL SWING GATE MINIMIZING GAPS TO PED. GATE. ENSURE GATE HOUSING OPENS
7. INSTALL 18" DELINEATORS - TRACK SIDE EXIT AREA (IN 9" PERIMETER EXTENSION)
8. COMPLETE R/W FENCE AND CONNECTIONS TO SWING GATE
9. ADJUST HINGES AND GATE CLOSER TO ALLOW PROPER OPERATION
10. CHECK 16'-6" ALONG PEDESTRIAN GATE FROM TRACK CENTERLINE FOR PARALLEL

PLAN VIEW

REVISION DATE: NOV. 1, 2012

ILLINOIS COMMERCE COMMISSION

DESIGN GUIDANCE  
PEDESTRIAN TREATMENTS  
HIGH SPEED RAIL - UP

PAGE 2 OF 2



## High Speed Rail – Chicago to St. Louis

Attachment to Buy America Waiver for Adjustable Hinges

December 10, 2013

### Summary of Research Performed to Identify an American-Made Hinge for the Pedestrian Swing Gates

The following information details the research performed to obtain a made in America gate hinge to be utilized with the high speed rail (HSR) escape pad swing gates that complied with the Illinois Commerce Commissions (ICC) requirements.

In early 2012 Design Nine (DNI) was requested to work with URS to identify a manufacturer of a pedestrian gate that was self-closing. A pedestrian gate being utilized by Metrolink, Southern California Regional Rail Authority had a gate design that appeared to be a good candidate for use in the HSR project. The gate had a hinge that utilized a machined hinge sleeve that was precision cut with rotating curved polished contact surfaces that provided a gravity type hinge that returned the gate to its stop post position. The gate post utilized by Metrolink consisted of a three (3) inch diameter steel post to which the hinge devices were attached. A request was made and information obtained from Metrolink revealed that the gates were operating exceptionally well since their installation requiring occasional lubrication. Permission was granted by Metrolink to utilize their gate and hinge design. HSR Tier 1 North fence design was progressed utilizing the Metrolink design for the fourteen (14) grade crossings.

After a review of the completed plan set in early March of 2012 the ICC requested the DNI to re-design the escape pad gate and incorporate a large square gate post rather than the round gate post that was in the Metrolink design. The machined hinge design on the round post was integral to the Metrolink gate. DNI made an investigation into an adjustable gate hinge to affix to the square gate post and/or the swing gate.

Contact was made to local, southern Illinois, and Eastern Missouri fencing contractors requesting information with no information being available. Utilizing the internet a search of fencing manufacturers was commenced where manufacturing documentation was obtained. Studying the documentation materials provided by a number of fence component manufacturers did not produce any adjustable type hinges that appeared to be suitable or applicable for use on the HSR pedestrian gates. Gate hinges were found but for them to be effective on the HSR pedestrian gates a hydraulic arm had to be included to permit the gradual closure of the pedestrian gate. The ICC wanted to have approval of the gate mechanism prior to approval and following several conversations with the ICC a determination was made that these options with the hydraulic arm were impractical due to potential vandalism concerns.

As the investigation progressed with the fencing manufacturers DNI consulted with Ameristar who was providing the data and material that fulfilled the HSR fencing requirements. The Ameristar representatives assisted our office in the development of the gate leaf design and recommended that contact be made with Modern Fence Technologies. Modern Fence Technologies is one of Ameristar's suppliers of standard hinges for their gates.

As Modern Fence Technologies was progressing with their research, design and manufacture, DNI continued the search for other resources of gate hinges and located an adjustable gate hinge manufactured by D & D Technologies. They produce a gate hinge that is adjustable and appeared to be quite vandal proof and would be satisfactory to the parameters provided by the ICC. This hinge has components manufactured in Italy.





# Hydraulic Gate Closers & Hinges



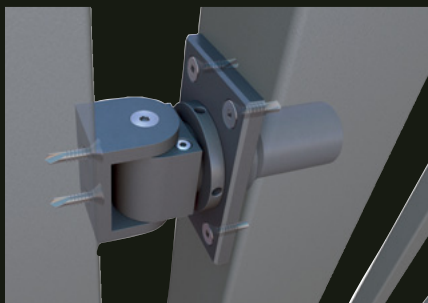
[www.ddtechglobal.com/sureclose](http://www.ddtechglobal.com/sureclose)

SureClose® Gate Hinges and Closers are designed to replace conventional commercial gate hinges and closers through its unique design that hides the closer hydraulics inside the fence post.

Precision engineered and superbly finished. There is no compromise of quality with SureClose.

Self-Closing models:  
SureClose 57  
SureClose 108

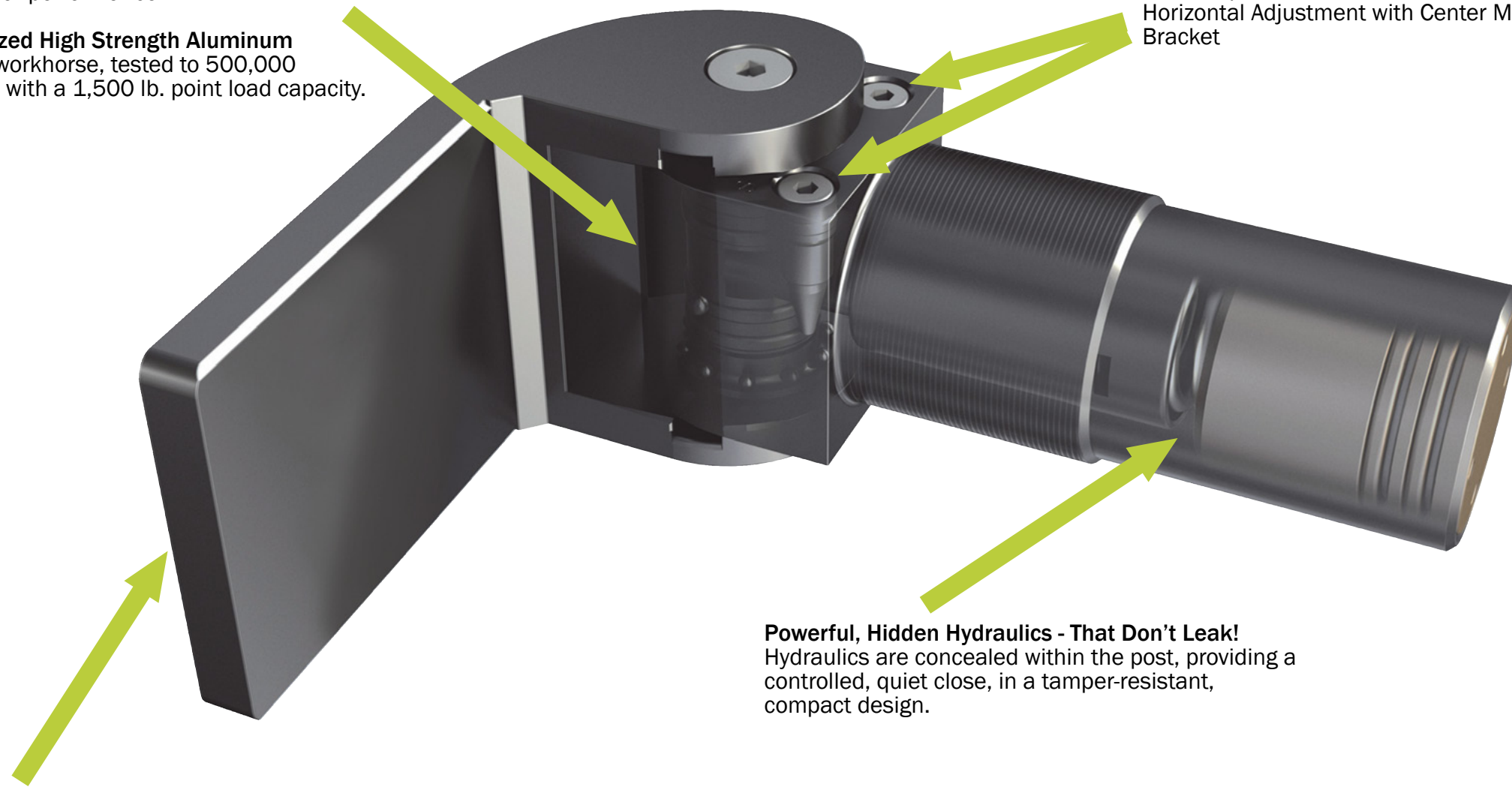
Non-Self-Closing model:  
SureClose SM



## SureClose® is a hinge & closer, in one small, powerful package!

**Dual Bearing Glide System™:**  
Two thrust bearings for consistently superior performance.

**Anodized High Strength Aluminum**  
It's a workhorse, tested to 500,000 cycles with a 1,500 lb. point load capacity.



**Multiple adjustment options:**

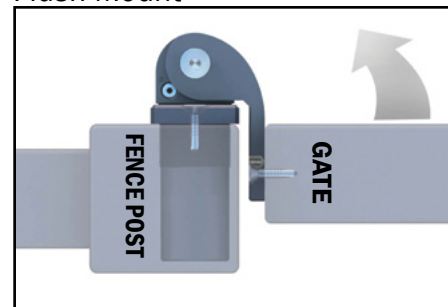
- Self-Closing Speed and Force
- Final snap-close action
- Horizontal Adjustment with Center Mount Bracket

**Powerful, Hidden Hydraulics - That Don't Leak!**  
Hydraulics are concealed within the post, providing a controlled, quiet close, in a tamper-resistant, compact design.

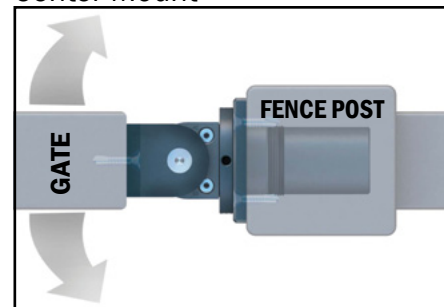
**Mounting Brackets:**  
A variety of gate brackets allow for virtually any square-post application:

- Steel or Aluminum
- Fastened or Welded
- Flush Mount or Center Mount

Flush Mount



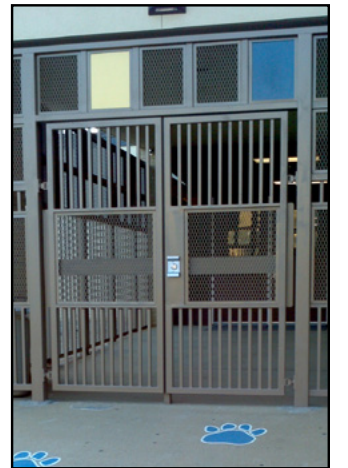
Center Mount



- Maintenance Free
- Flush Mount & Center Mount options
- Non self-closing models available
- Visibly Small Footprint
- Multiple Adjustment Options
- Prevents Gate Slam Noise & Gate Damage
- Self-Closes Gates up to 260 lbs.
- High Corrosion Resistance  
-50 Micron Anodizing (Aluminum Components)

Hinge Combinations	Self-Closing Gate Weight Max*	Point Load Capacity
57 + SM	90 lbs (40 kgs)	1,500 lbs (680 kgs)
57 + 57	180 lbs (80 kgs)	1,500 lbs (680 kgs)
108 + SM	180 lbs (80 kgs)	1,500 lbs (680 kgs)
108 + 108	260 lbs (120 kgs)	1,500 lbs (680 kgs)
SM + SM	-	1,500 lbs (680 kgs)

\*CAUTION: Based on max gate size 72"H x 40"W (1800x1000mm). For gates with greater HxW, or if conditions such as wind play a role, use hinge combinations with higher self-closing weight ratings.



# SureClose for Aluminum Gates (Screw-on)

## Center Mount



**SM S**  
Item#: 75001113  
NON-SELF-CLOSING



**57 S**  
Item#: 75057113  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°



**57SF S**  
Item#: 75057123  
SELF-CLOSING FROM 90°

**108 S**  
Item#: 75108113  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°  
• With Final Snap Action

**108 SF S**  
Item#: 75108123  
SELF-CLOSING FROM 90°  
• With Final Snap Action



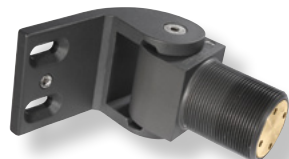
Item#*	Type	Description	Self-Closing	Max Gate Swing	Final Snap Action	Pool/Child Safety**	Horiz Adjust.	Hinge Gap	Fence Post Size Min.	Mount Type	Weight (lbs/kg)
75001113	SM S	Heavy-Duty Hinge	-	90°	-	-	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	1.08/0.50
75057113	57 S	Heavy-Duty Hydraulic Closer & Hinge	Yes	90°	-	-	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	1.30/0.59
75057123	57SF S	Heavy-Duty Hydraulic Closer & Hinge	Yes	90°	-	Yes	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	1.30/0.59
75108113	108 S	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	90°	Yes	-	Yes	2 1/2-3" (64-76mm)	3" (76mm)	Center	1.80/0.82
75108123	108SF S	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	90°	Yes	Yes	Yes	2 1/2-3" (64-76mm)	3" (76mm)	Center	1.80/0.82

\*Gate mounting brackets included with hinge. Post mounting brackets sold separately. Fasteners not included.  
\*\*Use only SF type closers on pool/safety gates.

## Flush Mount



**SM AT90 S**  
Item#: 75001213  
NON-SELF-CLOSING



**57 AT90 S**  
Item#: 75057213  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°



**57SF AT90 S**  
Item#: 75057223  
SELF-CLOSING FROM 90°

**108 AT90 S**  
Item#: 75108213  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°  
• With Final Snap Action

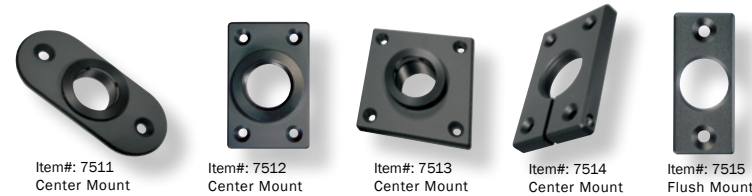
**108SF AT90 S**  
Item#: 75108223  
SELF-CLOSING FROM 90°  
• With Final Snap Action

Item#*	Type	Description	Self-Closing	Max Gate Swing	Final Snap Action	Pool/Child Safety**	Horiz Adjust.	Hinge Gap	Fence Post Size Min.	Mount Type	Weight (lbs/kg)
75001213	SM AT90 S	Heavy-Duty Hinge	-	180°	-	-	-	1/2" (13mm)	2" (50mm)	Flush	1.17/0.53
75057213	57 AT90 S	Heavy-Duty Hydraulic Closer & Hinge	Yes	180°	-	-	-	1/2" (13mm)	2" (50mm)	Flush	1.38/0.63
75057223	57SF AT90S	Heavy-Duty Hydraulic Closer & Hinge	Yes	90°	-	Yes	-	1/2" (13mm)	2" (50mm)	Flush	1.38/0.63
75108213	108 AT90 S	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	180°	Yes	-	-	1/2" (13mm)	3" (76mm)	Flush	1.90/0.86
75108223	108SF AT90 S	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	90°	Yes	Yes	-	1/2" (13mm)	3" (76mm)	Flush	1.90/0.86

\*Gate mounting brackets included with hinge. Post mounting brackets sold separately. Fasteners not included.  
\*\*Use only SF type closers on pool/safety gates.

## Post Mounting Brackets

Aluminum Screw-On Options (Sold Separately)



Item#: 7511 Center Mount  
Item#: 7512 Center Mount  
Item#: 7513 Center Mount  
Item#: 7514 Center Mount  
Item#: 7515 Flush Mount

Item#	Type	Description	Max Gate Swing	Horiz. Adjust	Hinge Gap	Fence Post Size Min.	Mount Type	Weight (lbs/kg)
7511	6026-01	Aluminum	90°	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	0.56/0.25
7512	6026-02	Aluminum	90°	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	0.49/0.22
7513	6026-03	Aluminum	90°	Yes	2 1/2-3" (64-76mm)	4" (102mm)	Center	0.64/0.29
7514	6026-04	Aluminum with Side Fixing Clamp	90°	-	2 1/2" (64mm)	2 1/2" (64mm)	Center	0.52/0.24
7515	6026-05	Aluminum	180°	-	1/2" (13mm)	2" (50mm)	Flush	0.35/0.16

# SureClose for Steel Gates (Weld-on)

## Center Mount



**SM W**  
Item#: 750001114  
NON SELF-CLOSING



**57 W**  
Item#: 75057114  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°



**57SF W**  
Item#: 75057124  
SELF-CLOSING FROM 90°

**108 W**  
Item#: 75108114  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°  
• With Final Snap Action

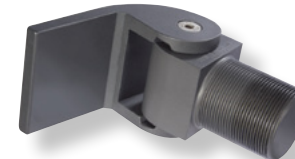
**108SF W**  
Item#: 75108124  
SELF-CLOSING FROM 90°  
• With Final Snap Action



Item#*	Type	Description	Self-Closing	Max Gate Swing	Final Snap Action	Pool/Child Safety**	Horiz Adjust.	Hinge Gap	Fence Post Size Min.	Mount Type	Weight (lbs/kg)
75001114	SM W	Heavy-Duty Hinge	-	90°	-	-	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	1.41/0.64
75057114	57 W	Heavy-Duty Hydraulic Closer & Hinge	Yes	90°	-	-	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	1.63/0.74
75057124	57SF W	Heavy-Duty Hydraulic Closer & Hinge	Yes	90°	-	Yes	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	1.63/0.74
75108114	108 W	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	90°	Yes	-	Yes	2 1/2-3" (64-76mm)	3" (76mm)	Center	2.14/0.97
75108124	108SF W	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	90°	Yes	Yes	Yes	2 1/2-3" (64-76mm)	3" (76mm)	Center	2.14/0.97

\*Gate mounting brackets included with hinge. Post mounting brackets sold separately. Fasteners not included.  
\*\*Use only SF type closers on pool/safety gates.

## Flush Mount



**SM AT90 W**  
Item#: 75001214  
NON-SELF-CLOSING



**57 AT90 W**  
Item#: 75057214  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°



**57SF AT90 W**  
Item#: 75057224  
SELF-CLOSING FROM 90°

**108 AT90 W**  
Item#: 75108214  
SELF-CLOSING FROM 85°  
• Holds gate open at 90°  
• With Final Snap Action

**108SF AT90 W**  
Item#: 75108224  
SELF-CLOSING FROM 90°  
• With Final Snap Action

Item#*	Type	Description	Self-Closing	Max Gate Swing	Final Snap Action	Pool/Child Safety**	Horiz Adjust.	Hinge Gap	Fence Post Size Min.	Mount Type	Weight (lbs/kg)
75001214	SM AT90 W	Heavy-Duty Hinge	-	180°	-	-	-	1/2" (13mm)	2" (50mm)	Flush	1.86/0.84
75057214	57 AT90 W	Heavy-Duty Hydraulic Closer & Hinge	Yes	180°	-	-	-	1/2" (13mm)	2" (50mm)	Flush	2.09/0.95
75057224	57SF AT90W	Heavy-Duty Hydraulic Closer & Hinge	Yes	90°	-	Yes	-	1/2" (13mm)	2" (50mm)	Flush	2.09/0.95
75108214	108 AT90 W	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	180°	Yes	-	-	1/2" (13mm)	3" (76mm)	Flush	2.60/1.18
75108224	108SF AT90 W	Heavy-Duty Hydraulic Closer & Hinge w/ Final Snap Action	Yes	90°	Yes	Yes	-	1/2" (13mm)	3" (76mm)	Flush	2.60/1.18

\*Gate mounting brackets included with hinge. Post mounting brackets sold separately. Fasteners not included.  
\*\*Use only SF type closers on pool/safety gates.

## Post Mounting Brackets

Steel Weld-on Options (Sold Separately)



Item#: 7525 Flush Mount  
Item#: 7526 Center Mount

Pool and child safety gate models (SF type) can be identified by the fifth dimple on the end cap.

DO NOT use any non-SF models (4-dimples only) on gates where human safety is critical.



Item#	Type	Description	Max Gate Swing	Horiz. Adjust	Hinge Gap	Fence Post Size Min.	Mount Type	Weight (lbs/kg)
7525	0510-04	Steel	180°	-	1/2" (13mm)	2 1/2" (64mm)	Flush	0.35/0.16
7526	0510-05	Steel	90°	Yes	2 1/2-3" (64-76mm)	2 1/2" (64mm)	Center	1.08/0.49





The future of gate hardware.

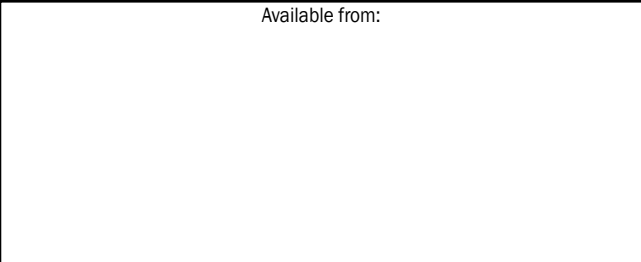
Please visit our website for a complete product overview, including video animations, installation instructions, CAD & Spec.

[www.ddtechglobal.com/sureclose](http://www.ddtechglobal.com/sureclose)



Scan code with smart phone to learn more about this product. (Download free QR Code reader at your App Store)

Available from:



  
**D&D Technologies**  
Hi-Performance Hardware

North & South America:  
D&D Technologies 7731 Woodwind Drive,  
Huntington Beach, CA 92647 Tel: (800) 716-0888 or (714) 677-1300  
Fax: (800) 464-6400. E-mail: [info@ddtechusa.com](mailto:info@ddtechusa.com)

Specifier Note: Select Section Numbers from options below. Change footer to match.

## SECTION 087130 [323130] COMMERCIAL HINGES AND CLOSERS (Full Length Version)

### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section Includes: D&D Technologies Commercial Hinges and Closers.

1. SureClose Hinge and Closer Products:
  - a. SureClose SM Hinge.
  - b. SureClose 57 and 57SF Hinge + Closer.
  - c. SureClose 108 and 108SF Hinge + Closer.
2. SureClose Post Mounting Bracket Products:
  - a. SureClose Post Mounting Bracket: Center Mount.
  - b. SureClose Post Mounting Bracket: Flush Mount.

B. Related Sections:

Specifier Note: Retain subparagraphs, select options, and complete related section information for requirements Contractor might expect to find in this Section but are specified in other Sections.

1. Division 08 [32] Section "Gate Latches and Locks" for gate latches and locks.
2. Division 08 [32] Section "Gate Hinges" for gate hinges.
3. Division 08 [32] Section "Gate Accessories" for gate accessories.
4. Division <##> Section "<Name>" for <Insert description of related requirements>.

#### 1.2 SUBMITTALS

A. Product Data: Submit product data for each type of product used on project with full model number.

B. Hardware Schedule:

1. Submit hardware schedule detailing hardware to be provided at each opening for coordination with gate frames, fence posts and related work.
2. For load bearing hardware provide product information showing quantity and type of hardware recommended by manufacturer to safely carry weight of gate and other applied loads.
3. For latching and locking devices, coordinate requirements with Owner, and indicate desired position of gate within fence line. This will determine which mounting brackets to use (Flush Mount or Center Mount).

C. Installation Instructions: Submit manufacturer's installation instruction for each hardware device. Mark installation instructions to indicate mounting heights for all operable hardware showing compliance with applicable codes requirements. For swimming pools and spas, consult the local Authority Having Jurisdiction.



- D. Warranty: Submit copy of manufacturer’s warranty for each product.
- E. Extra Materials: At project closeout provide installation and adjustment instructions, warranties and advisories, extra parts, accessories, and tools normally provided by manufacturer with installed hardware for maintenance and adjustment of installed hardware.

1.3 QUALITY ASSURANCE

- A. D&D Technologies operates a fully accredited and internationally recognized ISO 9001 Quality Assurance System, which governs the design and manufacture of all our products.

1.4 WARRANTY

- A. Two Year Limited Warranty (SureClose Only).

PART 2 - PRODUCTS

2.1 PRODUCTS

- A. Products: Subject to compliance with requirements, provide the following D&D Technologies commercial hinge and closer products. No substitutions.

**Specifier Note:** Select products from list below applicable to project. SureClose Hinges and Closer Products:

1. General Description: SureClose is a gate closer and hinge in one small, powerful package. It has been designed to replace conventional hinges, closers and header arrangements through its unique design that hides the closer hydraulics inside the fence post. Designed for commercial, industrial, custom residential and estate gates, SureClose comes in three basic models, with mounting brackets that cover most any square post installation, including steel or aluminum, flush mounted or center mounted, fastened or welded, with adjustable self-closing speed. Models are also available that feature a Final Snap Action for overcoming electric or coded locks found in many security applications and a non-self-closing version for access control and most heavy commercial or residential gates. Point load capacity up to 1,500 lbs (680kg) per gate / pair.

SURECLOSE WEIGHT CHART		
Hinge Type Combination	*Maximum Self-Closing Gate Weight	Point Load Capacity Per Gate / Pair
57 + SM	90 lb (40kg)	1,500 lb (680kg)
57 + 57	180 lb (80kg)	1,500 lb (680kg)
108 + SM	180 lb (80kg)	1,500 lb (680kg)
108 + 108	260 lb (120kg)	1,500 lb (680kg)
SM + SM	-	1,500 lb (680kg)
*Based on maximum gate size 72"H x 40"W (1,800mm x 1,000mm)		

2. General Features and Benefits:

- a. Gate closer and hinge all-in-one. No need for a header.
- b. Concealed within the fence post. Small footprint is unobtrusive.
- c. Powerful hydraulics will close gates up to 260 lb (120kg).
- d. Soft, quiet closure. Reduces stress on latch and lock systems.
- e. Two thrust bearings for consistently superior performance.
- f. Point load capacity 1,500 lb (680kg) per gate / pair.
- g. Adjustable self-closing speed / force (57 and 108 models).
- h. Adjustable Final Snap Action (108 models only).
- i. No resistance if closed quickly in an emergency.
- j. Tested to 500,000 open / close cycles.
- k. Maintenance free. Never add hydraulic fluid.
- l. For all square profile steel and aluminum gates and posts.
- m. Steel or aluminum mounting brackets.
- n. Use fasteners or weld (fasteners not included).
- o. Mounting brackets for flush and center mounted locksets.
- p. Center mount options provide horizontal adjustment.
- q. All hinges / closers come standard with gate mounting bracket included. Post mounting brackets sold separately.
- r. Fits left or right handed, inswing or outswing gates.
- s. Aluminum hinge and mounting brackets have thick, 50 micron anodizing.
- t. Mounting brackets can be powder coated, but do NOT powder coat the hinge / closer itself. Protect all threads and sensitive areas when powder coating.
- u. Tamper resistant.

3. SureClose SM Hinges:

- a. Product Description: SureClose SM Hinge is non-self-closing. Designed for large, heavy commercial and residential gates with a point load capacity up to 1,500 lb (680kg). Ideal for access control and estate gates. The SM model features extra-large hinge pins and dual thrust bearings designed for high loads. Reduce cost when SM is used as the bottom load bearing hinge along with a SureClose 57 or 108 closer on top. All SureClose hinges and closers come packaged with the gate mounting bracket included. Post mounting brackets sold separately.
- b. Features:
  - 1) Plain pivoting, non-self-closing.
  - 2) Ideal for access control and estate gates.
  - 3) Dual thrust bearings. Point load capacity 1,500 lb (680kg).
  - 4) SM models have larger hinge pins for added strength.
  - 5) When combining with 57 or 108 models, use SM as bottom load bearing hinge.
  - 6) Gate opens either 90<sup>0</sup> or 180<sup>0</sup> (depending on mounting bracket).
  - 7) SM models require 2"+ (50mm+) fence posts (see product codes for fence post sizes).
  - 8) Gate mounting brackets included with all hinge / closers. Post mounting brackets sold separately.



PRODUCT CHART SURECLOSE SM HINGES									
Model #	Hinge Type	Self-Closing	Mounting Bracket Material	Fixing Method	Post Mounting Position	Gate Opens	Horiz Adjust	Hinge Gap	Fence Post Size
75001114	SM W	No	Steel	Weld	Center Mount	90°	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
75001214	SM AT90W	No	Steel	Weld	Flush Mount	180°	-	1/2" 13mm	2"+ 50mm+
75001113	SM S	No	Aluminum	Weld / Fasteners	Center Mount	90°	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
75001213	SM AT90S	No	Aluminum	Weld / Fasteners	Flush Mount	180°	-	1/2" 13mm	2"+ 50mm+

c. Visit [http://ddtechglobal.com/support/sureclose\\_sm\\_non-self-closing](http://ddtechglobal.com/support/sureclose_sm_non-self-closing) for free online videos and installation information.

4. SureClose 57 and 57SF Hinges / Closers:

a. Product Description:

- 1) SureClose 57 is a concealed hydraulic gate closer that is speed (force) adjustable. Designed to never leak hydraulic fluid, the SureClose 57 is extremely safe and does not offer resistance if closed quickly in an emergency. The 57 (non-SF) model has a hold-open feature from 90° to 180°. Soft, quiet closure also protects the latching / locking system. Tested to 500,000 open / close cycles and a 1,500 lb (680kg) point load capacity. Non-SF is NOT recommended for pool and safety gates.
- 2) SureClose 57SF is suitable for pool and safety gates. SF models open to and self-close from 90°. No hold-open feature. CAUTION: When used on swimming pool gates, always consult local authorities for swimming pool fencing codes.

b. Features:

- 1) Self-closes gates up to 180 lb (80kg) 57+57 combination.
- 2) Adjustable closing speed (force).
- 3) 57SF (safety) model: Gate opens 90°. No hold-open feature. Recommended for pool and safety gates.
- 4) 57 (non-SF) models: Hold-open feature from 90° to 180°. The non-SF models are NOT recommended for pool and safety gates.
- 5) Center Mount brackets allow gate to open 90° both inward and outward.
- 6) Flush Mount brackets permit 180° gate opening (57 non-SF only).
- 7) Combine with SM model to reduce cost (57+SM). 90 lb (40kg) self-close maximum.
- 8) Dual thrust bearings. Point load capacity 1,500 lb (680kg).
- 9) 57 models require 2"+ (50mm+) fence posts (see product codes for fence post sizes).
- 10) Gate mounting brackets included with all hinge / closers. Post mounting brackets sold separately.

PRODUCT CHART SURECLOSE 57 AND 57SF HINGES / CLOSERS											
Model #	Hinge Type	Self Close	Final Snap Action	Mounting Bracket Material	Fixing Method	Post Mounting Position	Gate Opens	Pool Child Safety	Horiz Adjust	Hinge Gap	Fence Post Size
75057114	57 W	Yes	No	Steel	Weld	Center Mount	90°	-	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
75057124	57SF W	Yes	No	Steel	Weld	Center Mount	90°	Yes	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
75057214	57 AT90 W	Yes	No	Steel	Weld	Flush Mount	180°	-	-	1/2" 13mm	2"+ 50mm
75057224	57SF AT90W	Yes	No	Steel	Weld	Flush Mount	90°	Yes	-	1/2" 13mm	2"+ 50mm
75057113	57 S	Yes	No	Aluminum	Weld / Fasteners	Center Mount	90°	-	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
75057123	57SF S	Yes	No	Aluminum	Weld / Fasteners	Center Mount	90°	Yes	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
75057213	57 AT90 S	Yes	No	Aluminum	Weld / Fasteners	Flush Mount	180°	-	-	1/2" 13mm	2"+ 50mm
75057223	57SF AT90 S	Yes	No	Aluminum	Weld / Fasteners	Flush Mount	90°	Yes	-	1/2" 13mm	2"+ 50mm

- c. Visit [http://ddtechglobal.com/support/sureclose\\_57](http://ddtechglobal.com/support/sureclose_57) for free online videos and installation information.

5. SureClose 108 and 108SF Hinges / Closers:

a. Product Description:

- 1) SureClose 108 is a concealed hydraulic gate closer. It features Final Snap Action (FSA) which increases speed at the end of closing to overcome electric or coded locks. Both closing speed and FSA are adjustable. Designed to never leak hydraulic fluid, the SureClose 108 is extremely safe and does not offer resistance if closed quickly in an emergency. The 108 (non-SF) model has a hold-open feature from 90° to 180°. Soft, quiet closure also protects the latching / locking system. Tested to 500,000 open / close cycles and carries a 1,500 lb (680kg) point load capacity. Non-SF is NOT recommended for pool and safety gates.
- 2) SureClose 108SF is suitable for pool and safety gates. SF models open to and self-close from 90°. No hold-open feature. CAUTION: When used on swimming pool gates, always consult local authorities for swimming pool fencing codes.

b. Features:

- 1) Self-closes gates up to 260 lb (120kg) 108+108 combination.
- 2) Adjustable closing speed (force).

- 3) Adjustable Final Snap Action (FSA).
- 4) 108SF (safety) model: Gate opens 90°. No hold-open feature. Recommended for pool and safety gates.
- 5) 108 (non-SF) model: Hold-open feature from 90° to 180°. The non-SF models are NOT recommended for pool and safety gates.
- 6) Center Mount brackets allow the gate to open 90° both inward and outward.
- 7) Flush Mount brackets permit 180° gate opening (108 non-SF only).
- 8) Combine with SM model to reduce cost (108+SM). 180 lb (80kg) self-close maximum.
- 9) Dual thrust bearings. Point load capacity 1,500 lb (680kg).
- 10) 108 model require 3"+ (76mm+) fence posts (see product codes for fence post sizes).
- 11) Gate mounting brackets included with all hinge / closers. Post mounting brackets sold separately.

PRODUCT CHART SURECLOSE 108 AND 108SF HINGES / CLOSERS											
Model #	Hinge Type	Self Closing	Final Snap Action	Mounting Bracket Material	Fixing Method	Post Mounting Position	Gate Opens	Pool Child Safety	Horiz Adjust	Hinge Gap	Fence Post Size
75108114	108 W	Yes	Yes	Steel	Weld	Center Mount	90°	-	Yes	2-1/2" - 3" 64-76mm	3"+ 76mm+
75108124	108SF W	Yes	Yes	Steel	Weld	Center Mount	90°	Yes	Yes	2-1/2" - 3" 64-76mm	3"+ 76mm+
75108214	108 AT90 W	Yes	Yes	Steel	Weld	Flush Mount	180°	-	-	1/2" 13mm	3"+ 76mm+
75108224	108SF AT90W	Yes	Yes	Steel	Weld	Flush Mount	90°	Yes	-	1/2" 13mm	3"+ 76mm+
75108113	108 S	Yes	Yes	Aluminum	Weld / Fasteners	Center Mount	90°	-	Yes	2-1/2" - 3" 64-76mm	3"+ 76mm+
75108123	108SF S	Yes	Yes	Aluminum	Weld / Fasteners	Center Mount	90°	Yes	Yes	2-1/2" - 3" 64-76mm	3"+ 76mm+
75108213	108 AT90 S	Yes	Yes	Aluminum	Weld / Fasteners	Flush Mount	180°	-	-	1/2" 13mm	3"+ 76mm+
75108223	108SF AT90 S	Yes	Yes	Aluminum	Weld / Fasteners	Flush Mount	90°	Yes	-	1/2" 13mm	3"+ 76mm+

- c. Visit [http://ddtechglobal.com/support/sureclose\\_108](http://ddtechglobal.com/support/sureclose_108) for free online videos and installation information.

C. SureClose Post Mounting Bracket Products (Sold Separately):

1. SureClose Post Mounting Brackets:

a. Product Description:

- 1) Center Mount Post Brackets: Positions the gate at the center of the fence line and post. Some latches, locksets and panic bars require a centerline position. Also maintains continuity of gate to fence line. Center Mount post brackets are horizontally adjustable to help ensure gate is level and the lockset is adjusted properly.

- 2) Flush Mount post brackets are designed so that the face of the gate frame is flush with the face of the fence post. Some latches, locksets and panic bars require this. Fixed gate gap at 1/2" (13mm). Larger gaps can be achieved by using shims between gate and GATE mounting bracket (shims not included).

b. Features: Center Mount Post Brackets:

- 1) Positions gate with center of fence line and post.
- 2) Allows gate to swing both in and out by 90° (total 180°).
- 3) Horizontally adjustable. Gate gap 2-1/2" to 3" (64-76mm).
- 4) Steel or aluminum (for square posts and gate frames).
- 5) Welded or fastened (fasteners not included).
- 6) Aluminum model 7514 has an added fixing clamp.

c. Features: Flush Mount Post Brackets:

- 1) Positions face of gate frame with face of fence post.
- 2) Allows gate to swing 180° either inward or outward. Note: SF hinges will not allow more than a 90° swing.
- 3) Use for small gate gaps (1/2" (13mm)). Shims on gate may be used to increase the gap (shims not included).
- 4) Depth of gate to post is adjustable via the GATE bracket.
- 5) Steel or aluminum (for square posts and gate frames).
- 6) Welded or fastened (fasteners not included).

PRODUCT CHART SURECLOSE POST MOUNTING BRACKETS								
Model #	Bracket Type	Mounting Bracket Material	Fixing Method	Post Mounting Position	Gate Opens	Horiz Adjust	Hinge Gap	Fence Post Size
7511	6026-01	Aluminum	Weld / Fasteners	Center Mount	90°	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
7512	6026-02	Aluminum	Weld / Fasteners	Center Mount	90°	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+
7513	6026-03	Aluminum	Weld / Fasteners	Center Mount	90°	Yes	2-1/2" - 3" 64-76mm	4"+ 102mm+
7514	6026-04	Aluminum	Weld / Fasteners	Center Mount	90°	-	2-1/2" 64mm	2-1/2"+ 64mm+
7515	6026-05	Aluminum	Weld / Fasteners	Flush Mount	180°	-	1/2" 13mm	2"+ 50mm+
7525	0510-04	Steel	Weld	Flush Mount	180°	-	1/2" 13mm	2"+ 50mm+
7526	0510-05	Steel	Weld	Center Mount	90°	Yes	2-1/2" - 3" 64-76mm	2-1/2"+ 64mm+

- d. Visit [http://ddtechglobal.com/support/center\\_mount](http://ddtechglobal.com/support/center_mount) and for free center mount online videos and installation information.
- e. Visit [http://ddtechglobal.com/support/flush\\_mount](http://ddtechglobal.com/support/flush_mount) and for free flush mount online videos and installation information.



## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine gate frames and fence posts, with Installer present, for compliance with requirements for gate hardware installation tolerances, assembly construction, and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.2 PREPARATION

- A. Prepare gate frames and fence posts in accordance with manufacturer's installation instructions. Any existing gate hardware must be removed before installation. Apply the proper corrosion protection and finish to any exposed screw hole or area left over from the removal of existing hardware before installation of D&D Technologies' hardware.

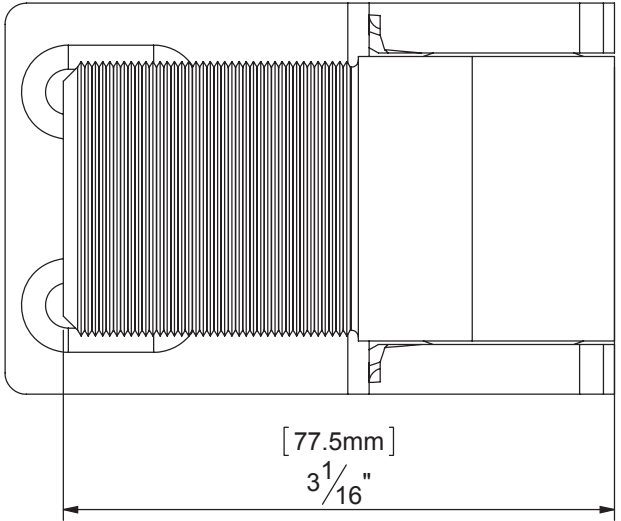
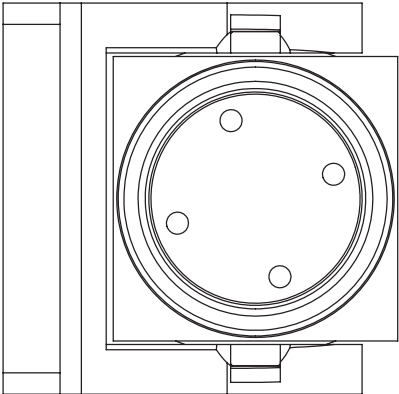
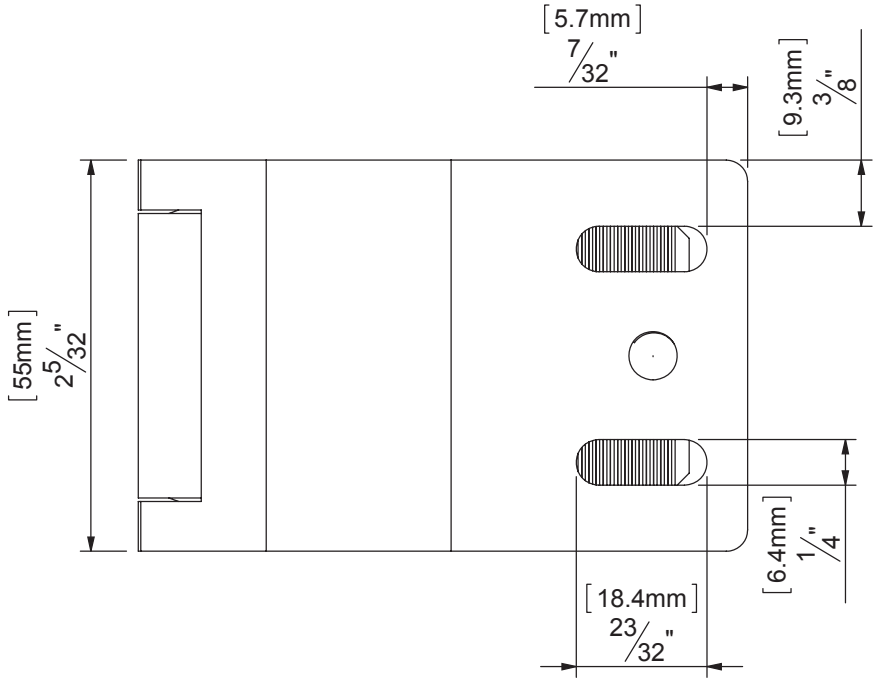
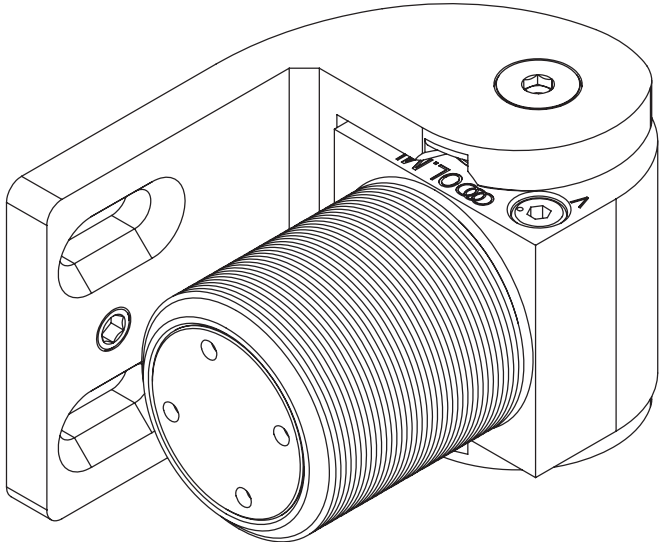
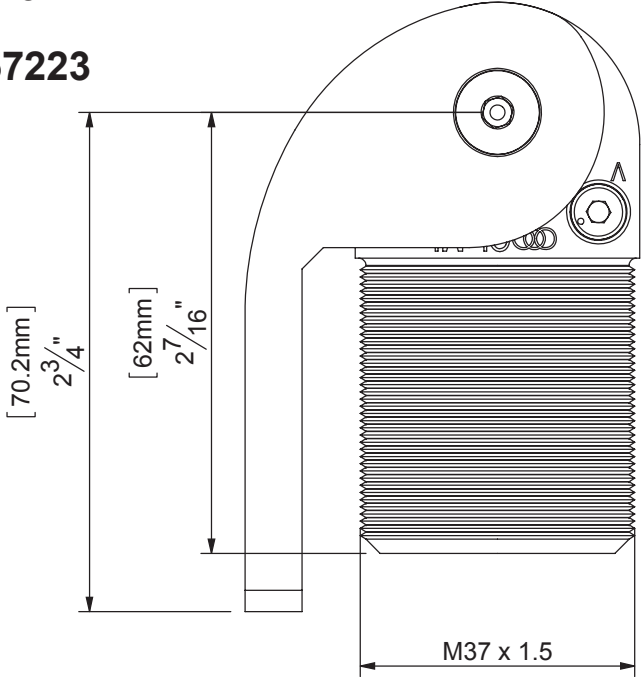
### 3.3 INSTALLATION

- A. Install each hardware items to comply with manufacturer's installation instructions, building code requirements, and requirements of Authorities Having Jurisdiction.
- B. Install hardware types and quantities indicated on submitted hardware schedule.
- C. Do not install surface-mounted hardware until substrate finishes have been completed.
- D. Set all gates, fence posts and gate hardware level, plumb and true to line and location. Adjust and reinforce attachments where necessary for proper installation and operation.
- E. Make final installation inspection with Owner, and make final adjustments prior to acceptance.

END OF SECTION

SURECLOSE 57 AT90 S - 75057213

SURECLOSE 57SF AT90 S - 75057223



SURECLOSE FLUSH MOUNT POST BRACKET - ALUMINUM - 7515

