

# 143.000 SH - DP50 FRAME - BILL OF MATERIALS

ITEM NO.	DESCRIPTION	QUANTITY	PART NO.	FAB DWG. NO	SOURCE
1	HEAD	1	10008687	P8687F01	A
2	SILL (DP-50)	1	10008672	10008672F03	A
3	JAMB	2	10008686	10756-0	A
4	FIXED MEETING RAIL	1	10008511	10757-0	A
5	GLAZING BEAD	4	10005470	STRAIGHT CUT	A
6	SCREEN RETAINER (2-3" PIECES)	2	10008263	STRAIGHT CUT	A
7	BALANCE COVER	2	10005104	STRAIGHT CUT	A
8	SASH STOP	2	10008487	STRAIGHT CUT	A
9	FIXED MEETING RAIL REINFORCEMENT	1	10300084	STRAIGHT CUT	BBBB
10	FIXED MEETING RAIL ANCHOR	2	79543 (INCLUDES GASKET) .187 BK X .290 HT		D
11	CENTERFIN WEATHERSTRIPPING	AS REQ'D			F.1
12	3/4" INSULATED GLASS	1			TBD
13	GLAZING COMPOUND	AS REQ'D			TBD
14	SETTING BLOCKS (REFER TO IG SUPPLIER GUIDELINES)	AS REQ'D			TBD
15	SCREEN ASSEMBLY	1	3/8" X 3/4"		TBD
16	MEETING RAIL ANCHOR TO JAMB SCREWS	4	#8 X 1" PFH		GGG
17	SILL TO JAMB SCREWS (OPTIONAL)	2	#8 X 3/4" PPH		TBD
18	MEETING RAIL REINF. TO JAMB SCREWS	2	#8 X 3" TRUSS HEAD		TBD
19	SILL REINFORCEMENT	1	10300096		DDDD
20					
21	Interlock (AT SILL)	2	24741		G
22	Interlock (AT SILL) SCREWS	4	#8 X 5/8" PPH		TBD
23					
24	BALANCE SYSTEM	2			AAAA
25	.550" X 1.250" W/BMF PAD	2	SF-550		AAAA
26	1/2" TOP SPRING COVER	2	S-TCOVER		AAAA
27	1/2" STACKING SPRING COVER	0 TO 8	S-SCOVER		AAAA
28	1/2" COVER MOUNTING SCREW	2	S-CSCREW		AAAA
29	BALANCE SCREWS	2 TO 10	#8 X 1" PFH		TBD
30					
31	KEEPER	2	677147		II
32	KEEPER SCREWS	4	#8 X 1/2" PFH		TBD
33					
34	INSTALLATION DETAILS	AS REQ'D	REFER TO APPLICABLE TEST REPORT		
35					

REV	DATE	DESCRIPTION	BY

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NORTH AMERICA

ARCHITECTURAL DIVISION  
7252 NARCOOSSEE ROAD  
ORLANDO, FLORIDA 32822

CTLA No. 159112  
Date Verified: 9/5/06  
Verified By: [Signature]

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NAME: 143000SH-DP50 BOM

DWN BY: CRB

CHKD BY: CRB



# 000.095 SH - DP50 SASH / 10008882 LIFT RAIL - BILL OF MATERIALS

ITEM NO.	DESCRIPTION	QUANTITY	PART NO.	FAB DWG. NO	SOURCE
1	LOCK RAIL	1	10008845	10812-0 / 10813-0	A
2	STILES	2	10008842	P8842F-09	A
3	LIFT RAIL	1	10008882	P8882F-11	A
4	BULB SEAL	1	10008206	STRAIGHT CUT	A
5	GLAZING BEAD	4	10008127 or 10005470	STRAIGHT CUT	A
6	REINFORCEMENT - LOCK RAIL, STILES & LIFT RAIL	4	10300082	STRAIGHT CUT	BBBB
7					A
8	CENTERFIN WEATHERSTRIPPING	AS REQ'D	.187 BK X .290 HT		F, I
9	3/4" INSULATED GLASS	1			TBD
10	GLAZING COMPOUND	AS REQ'D	REFER TO APPLICABLE TEST REPORT		TBD
11	SETTING BLOCKS (REFER TO IG SUPPLIER GUIDELINES)	AS REQ'D	REFER TO APPLICABLE TEST REPORT		TBD
12					
13	LOCKS	2	CW024-22		FFFF
14	LOCK SCREWS	4	#8 x 3/4" PAINTED PFH		TBD
15					
16	TILT LATCHES	2	8032 L/R		FFFF
17	TILT LATCH CLIP	2	10300087		DDDD
18	TILT LATCH SCREWS	4	#8 X 1" PFH		TBD
19					
20	PIVOT BAR - "L" SHAPED LOCK IN	2	S-PB254		AAAA
21	PIVOT BAR SCREWS (BTM)	4	#8 x 3/8" PPH		TBD
22	PIVOT BAR SCREWS (SIDES)	2	#6 x 1/2 PFH		TBD
23					
24	Interlock (AT SILL)	2	24741		G
25	Interlock (AT SILL) SCREWS	4	#8 X 1/2" PPH		TBD
26					
27	INSTALLATION DETAILS	AS REQ'D	REFER TO APPLICABLE TEST REPORT		TBD
28					
29					
30					
31					
32					



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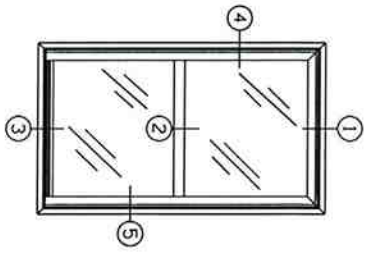
NAME: 000095SH-DP50 BOM

DWN BY: CRB

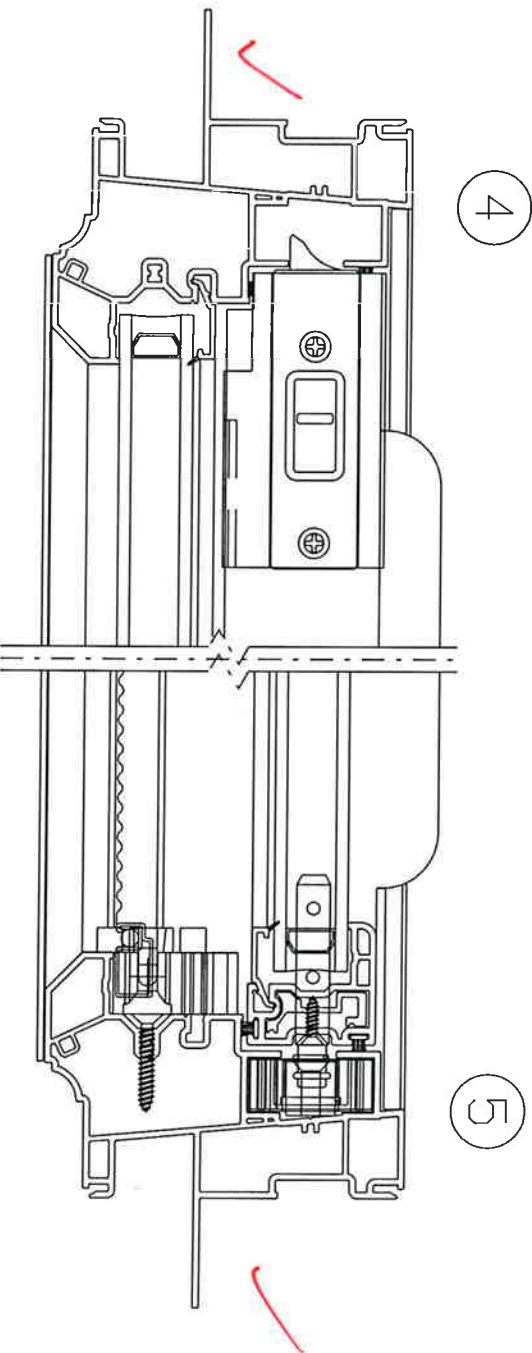
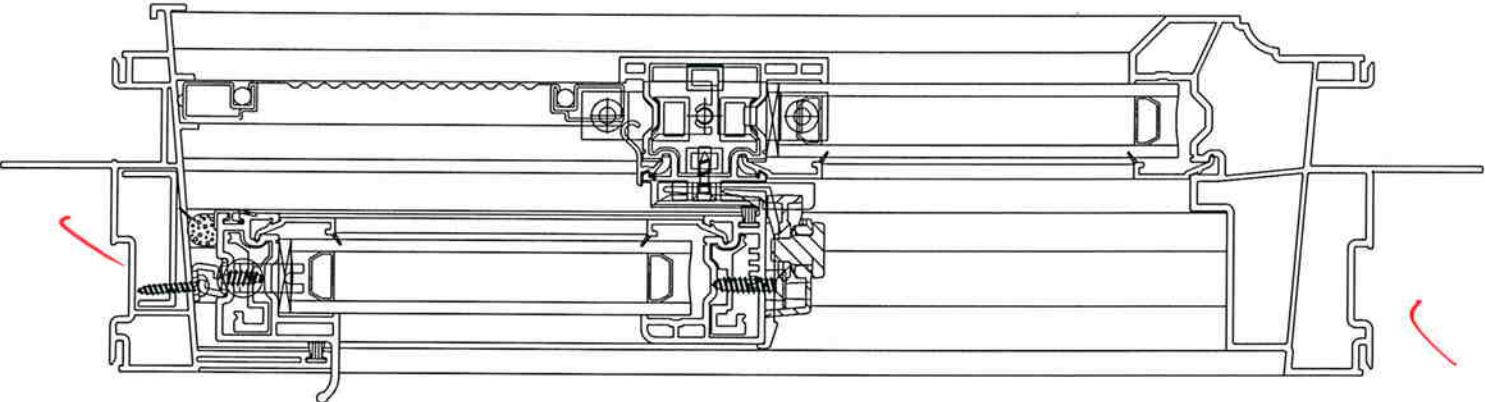
CHKD BY: CRB

DWG NO: 000095SH-DP50.XIS

\*Note -  
 1561W: Single Hung  
 w/ Fin  
 1561W-1: Single Hung  
 w/o fin



**CTLA**  
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 ORLANDO, FLORIDA 32822  
 CTLA No. 1561W-1  
 Date Verified: 9/15/06  
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LAYOUT DRAWING

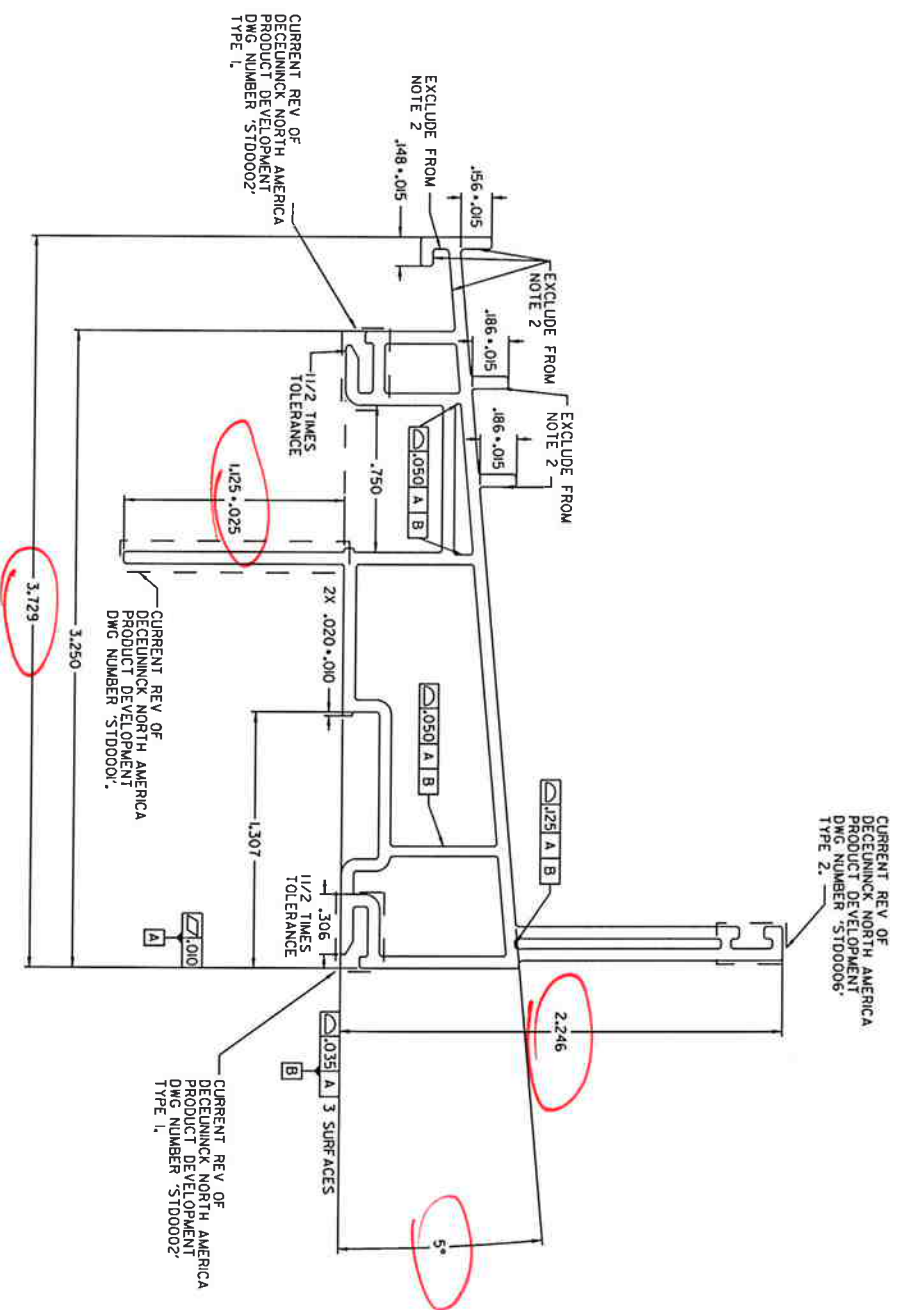
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THIRD ANGLE PROJECTION		DATE: 06/05/31
[Third Angle Projection Symbol]		DRAWN BY: CRB
		DATE: 06/05/31
		AUTH: DATE:
		AUTH: DATE:
		FILENAME: 143095SH-DP50.dgn

<b>decaunnick</b> NORTH AMERICA		Copyright 2006 361 North Greenway Road Mankato, Ohio 44890
NAME: 143095 SINGLE HUNG DP-50		SIZE DWG: NO: 143095SH-DP50
SCALE: 1:1		FLBS./FT. 1:1 SHEET: 1 OF 1
REV: NEW		

REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
D	CHANGE TO SINGLE SHEET FORMAT	05/06/29	JCM

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



- NOTES:
- PERFECT FORM NOT REQUIRED AT MMC.
  - UNLESS OTHERWISE SPECIFIED

0.040	A   B
0.020	A   B

ALL OVER EXCEPT INTERNAL HOLLOW.

- ALL BASIC DIMENSIONS INCORPORATED IN ENGINEERING CAD FILE.
- PROFILE OF A SURFACE FEATURE CONTROLS ARE OVER UNIT LENGTH BASIC.
- SEE CURRENT REV OF DIM IN NI-FOR EXPLANATION OF PART IDENTIFICATION NUMBERS.
- STANDARD STRAIGHTNESS CLASS A AND LENGTH TOLERANCES APPLY.
- DIM 'A' IS LENGTH OF PART PER STD0003 AND CAN BE ANY NUMERIC CHARACTER.
- SPECIFICATION 10008672A REV A APPLIES.
- PACKAGING ARRANGEMENT 10008672A REV A APPLIES.
- UNSPECIFIED INTERNAL RADIUS = CR .015 +.020 / -.005 WHEN VIEWED WITHOUT MAGNIFICATION.
- UNSPECIFIED INTERNAL RADIUS = CR .015 +.020 / -.005 WHEN VIEWED WITHOUT MAGNIFICATION.
- UNSPECIFIED EXTERNAL WALL THICKNESS = .052 - .072
- UNSPECIFIED INTERNAL THICKNESS = .040 - .060

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DESIGN BY:	CRB
DATE:	02/06/18
DRAWN BY:	CRB
DATE:	02/06/18
AUTH:	
DATE:	
AUTH:	
DATE:	
FILENAME:	10008672-SH.DGN

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Mansfield, Ohio 44906

NAME: SILL FRAME SH/DH (R50)

SIZE/DWG. NO: 10008672

SCALE: 2:1

TBS/FTJ .501

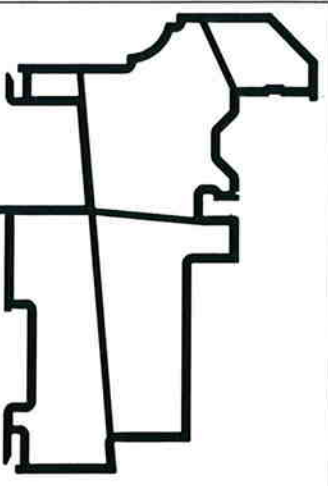
SHEET 1 OF 1

CTLA No. 15610 & 15610-1  
Date Verified: 9/5/06  
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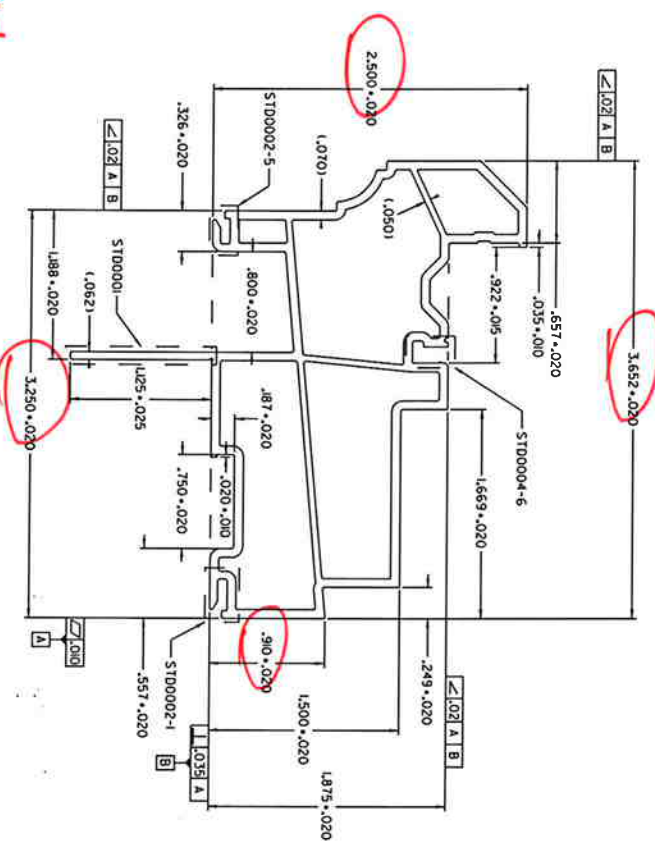
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7252 NARCOOSSEE ROAD  
ORLANDO, FLORIDA 32822







SCALE 1:1



**CFI**  
 ESTIMATED LABOR COSTS  
**ARCHITECTURAL DIVISION**  
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 ORLANDO, FLORIDA 32822

CTLA No. 156119 & 156119-1  
 Date Verified: 9/5/06  
 Verified By: [Signature]

- NOTES:
1. UNDESIGNED STRAIGHTNESS CLASS A AND LENGTH TOLERANCES APPLY
  2. UNDESIGNED EXTERNAL RADI = .XXX +.000 / -.005
  3. UNDESIGNED INTERNAL RADI = .XXX +.020 / -.005
  4. UNDESIGNED EXTERNAL WALL THICKNESS = .XXX +/- .102
  5. UNDESIGNED INTERNAL WALL THICKNESS = .XXX +/- .202

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DIM ARE IN INCHES	
ALL UNTOLERANCED DIMENSIONS ARE BASIC	
INTERPRET DIM AND TOL PER ASME Y14.5M - 1994	
THIRD ANGLE PROJECTION	

DESIGN BY:	CRB
DATE:	00/05/02
DRAWN BY:	CRB
DATE:	04/08/02
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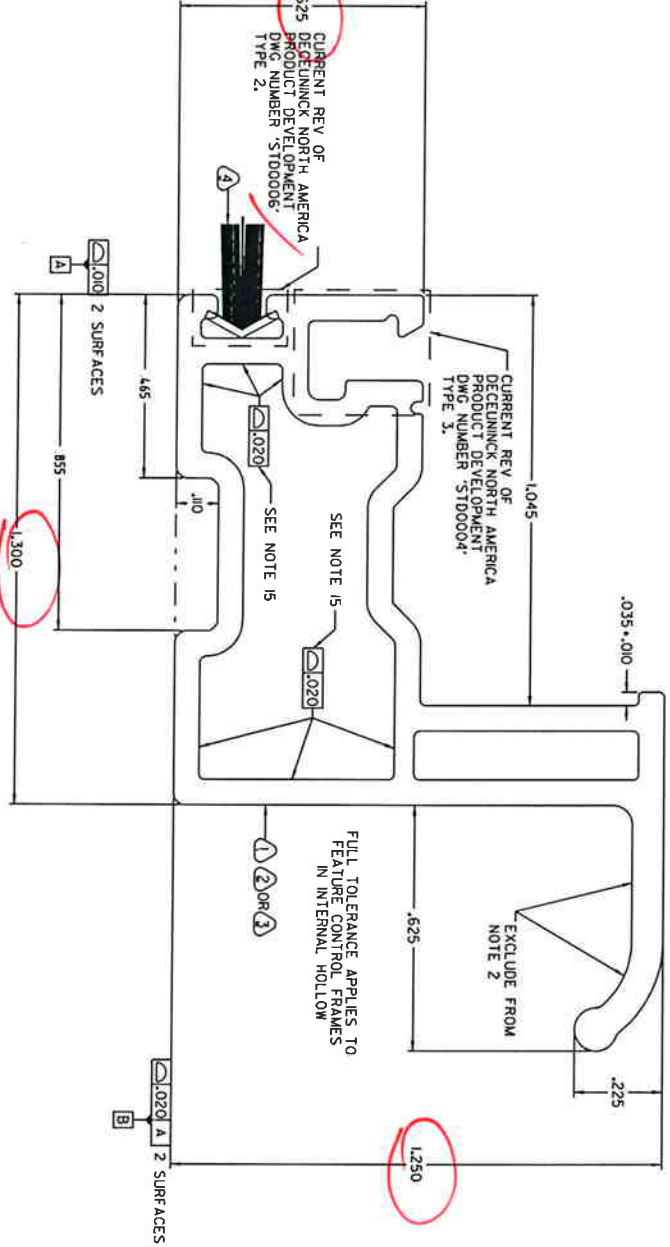
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HEAD FRAME - SH (PW MF)	SCALE: 1:1	SCALE: 1/8"=1'-0"	SCALE: 1/4"=1'-0"
SCALE: 1:1	SCALE: 1/8"=1'-0"	SCALE: 1/4"=1'-0"	SCALE: 1/2"=1'-0"
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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
E	001-3	06/05/02	BWB

CAD MAINTAINED, CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

REV	DESCRIPTION	DATE	APPROVED
[E]	CHANGE TO SINGLE SHEET FORMAT	09/07/27	JGM

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NOTES:

- PERFECT FORM NOT REQUIRED AT MMC.
- UNLESS OTHERWISE SPECIFIED  $\frac{\Delta}{\Delta}$ .040|A|B  $\frac{\Delta}{\Delta}$ .020|A|B ALL OVER EXCEPT INTERNAL HOLLOW.

- ALL BASIC DIMENSIONS INCORPORATED IN ENGINEERING CAD FILE.
- PROFILE OF A SURFACE FEATURE CONTROLS ARE OVER UNIT LENGTH BASIC.
- SEE CURRENT REV OF DNA IN-1-FOR EXPLANATION OF PART IDENTIFICATION NUMBERS.
- SEE CURRENT REV OF DNA PRODUCT DEVELOPMENT DWG NUMBER STD00003 STRAIGHTNESS CLASS C AND LENGTH TOLERANCES APPLY.
- DIM A IS LENGTH OF PART PER STD00003 AND CAN BE ANY NUMERIC CHARACTER.
- SPECIFICATION 10008882 REV NEW APPLIES.
- PACKAGING ARRANGEMENT 10008882A REV NEW APPLIES.
- UNSPECIFIED INTERNAL RADIUS: CR .015 +.020 / -.005
- UNSPECIFIED INTERNAL RADIUS: CR .015 +.020 / -.005
- WHEN VIEWED WITHOUT MAGNIFICATION.
- WHEN VIEWED INTERNAL WALL THICKNESS = .040 - .060
- UNSPECIFIED INTERNAL WALL THICKNESS = .040 - .060
- UNSPECIFIED INTERNAL THICKNESS = .040 - .060
- UNSPECIFIED INTERNAL THICKNESS = .040 - .060
- THESE FEATURE CONTROL FRAMES ARE SIMULTANEOUS REQUIREMENTS.

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DESIGN BY:	DATE:	THIRD ANGLE PROJECTION	SCALE:
TJH	97/08/04		4:1 (LBS/FT)
DRAWN BY:	DATE:	SIZE DWG. NO:	SHEET:
GRB	03/09/23	10008882.SH	267
AUTH:	DATE:	REV:	
AUTH:	DATE:	F	
FILENAME:			
10008882.SH.DGN			

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 ORLANDO, FLORIDA 32822

CTIA No. 15414 & 15414a-1  
 Date Verified: 9/15/04  
 Verified By: [Signature]

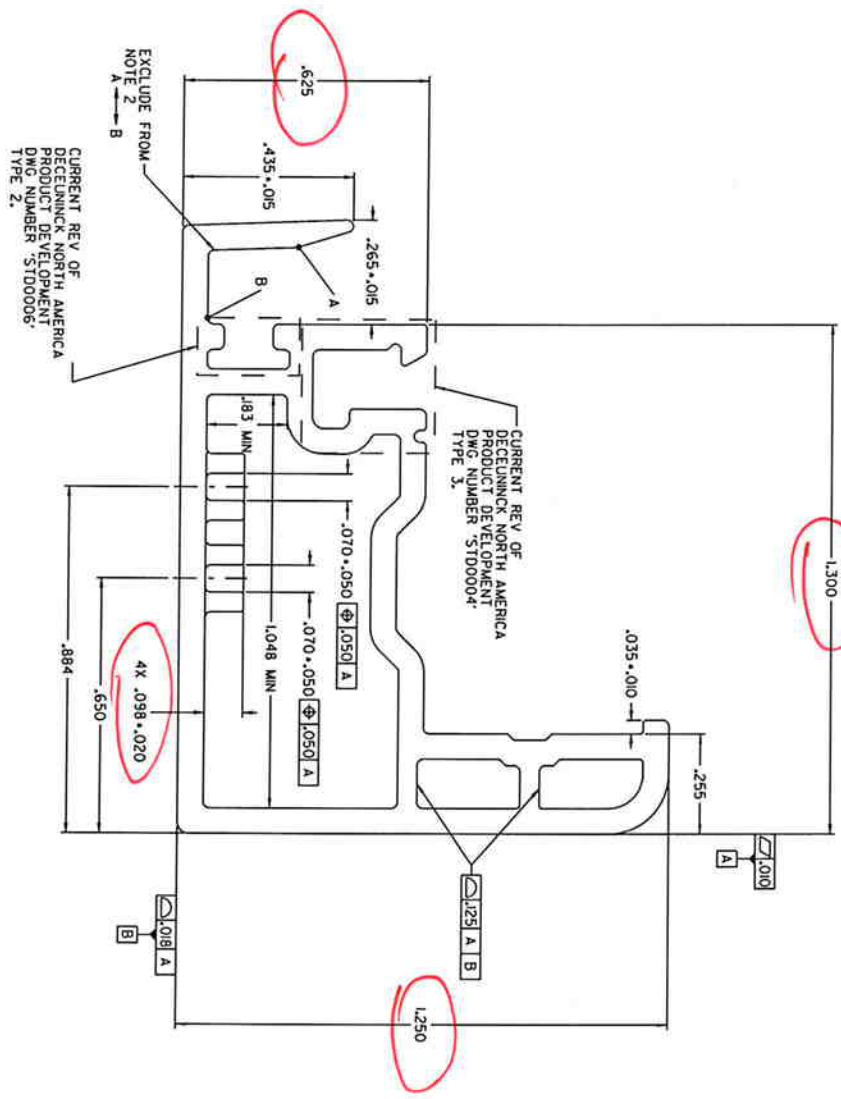
SEE SEPARATE PARTS LIST

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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
C	CHANGE TO SINGLE SHEET FORMAT	05/07/27	JOM

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- NOTES:
- PERFECT FORM NOT REQUIRED AT MMC.
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- ALL BASIC DIMENSIONS INCORPORATED IN ENGINEERING CAD FILE.
- PROFILE OF A SURFACE FEATURE CONTROLS ARE OVER T UNIT LENGTH BASIC.
- SEE CURRENT REV OF DNA MP N-I-FOR EXPLANATION OF PART IDENTIFICATION NUMBERS.
- ST000003 STRAIGHTNESS CLASS C AND LENGTH TOLERANCES APPLY.
- DIM A IS LENGTH OF PART PER ST00003 AND CAN BE ANY NUMERIC CHARACTER.
- SPECIFICATION 10008845 REV NEW APPLIES.
- PACKAGING ARRANGEMENT 10008845A REV NEW APPLIES.
- UNSPECIFIED EXTERNAL RADI = CR .015 +.010 / -.005 WHEN VIEWED WITHOUT MAGNIFICATION.
- UNSPECIFIED INTERNAL RADI = CR .015 +.020 / -.005 WHEN VIEWED WITHOUT MAGNIFICATION.
- UNSPECIFIED EXTERNAL WALL THICKNESS = .055 - .075
- UNSPECIFIED INTERNAL THICKNESS = .040 - .060

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THIRD ANGLE PROJECTION

DESIGN BY:	CRB	DATE:	03/11/10
DRAWN BY:	CRB	DATE:	03/11/10
AUTH:		DATE:	
AUTH:		DATE:	
FILENAME:	10008845-SH.dgn	SCALE:	4:1
		NORTH AMERICA LOCK SASH 10008845-SH SHEET: 1 OF 1	

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CTIA No. 156114-1  
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 Verified By: W

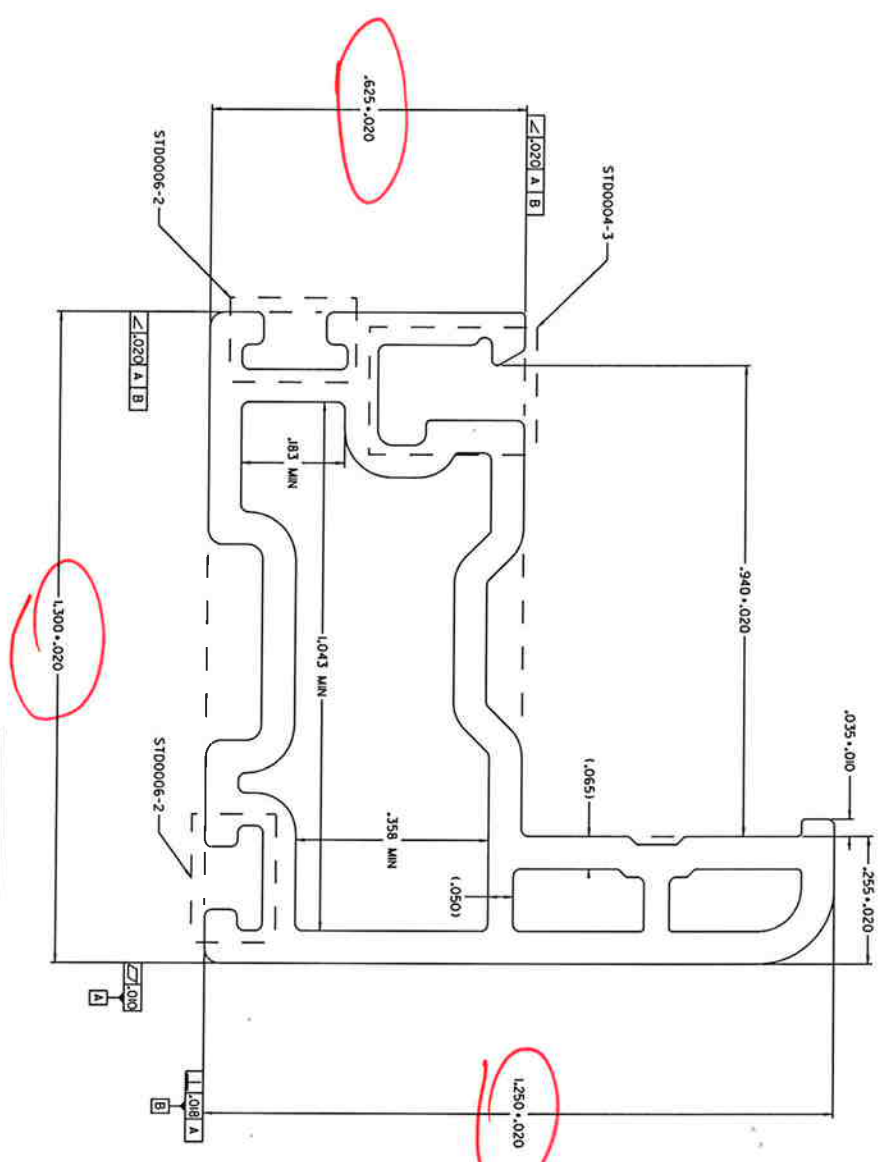




SCALE 1:1

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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
C	CHANGE TO SINGLE SHEET FORMAT	05/07/27	JJM
D	001-3	06/08/01	BWB



- NOTES:
1. STANDARD STRAIGHTNESS, CLASS C AND LENGTH TOLERANCES APPLY
  2. INTERPRET ALL TOLERANCES PER ASME Y14.5
  3. UNSPECIFIED INTERNAL RADI = .XXX ± .020 / -.005
  4. UNSPECIFIED EXTERNAL RADI = .XXX ± .020 / -.005
  5. UNSPECIFIED INTERNAL WALL THICKNESS = .XXX ± .020
  6. UNSPECIFIED EXTERNAL WALL THICKNESS = .XXX ± .020

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THIRD ANGLE PROJECTION

DESIGN BY:		CRB
DATE:	03/11/06	CRB
DRAWN BY:		
DATE:	03/11/06	
AUTH:		
DATE:		
AUTH:		
DATE:		
FILENAME:		
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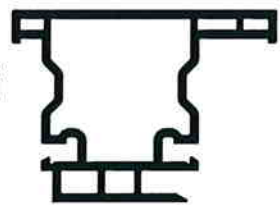
**decaunlick** CORPORATION 2008 30 NORTH LAMAR ROAD WOODBURY, OH 44098

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7252 NARCOOSSEE ROAD  
ORLANDO, FLORIDA 32822

CTLA No. 15616 & 15616m1  
Date Verified: 9/5/16  
Verified By: [Signature]

SCALE: 4:1  
SHEET: 242 OF 1

MAIN SASH  
REV: D



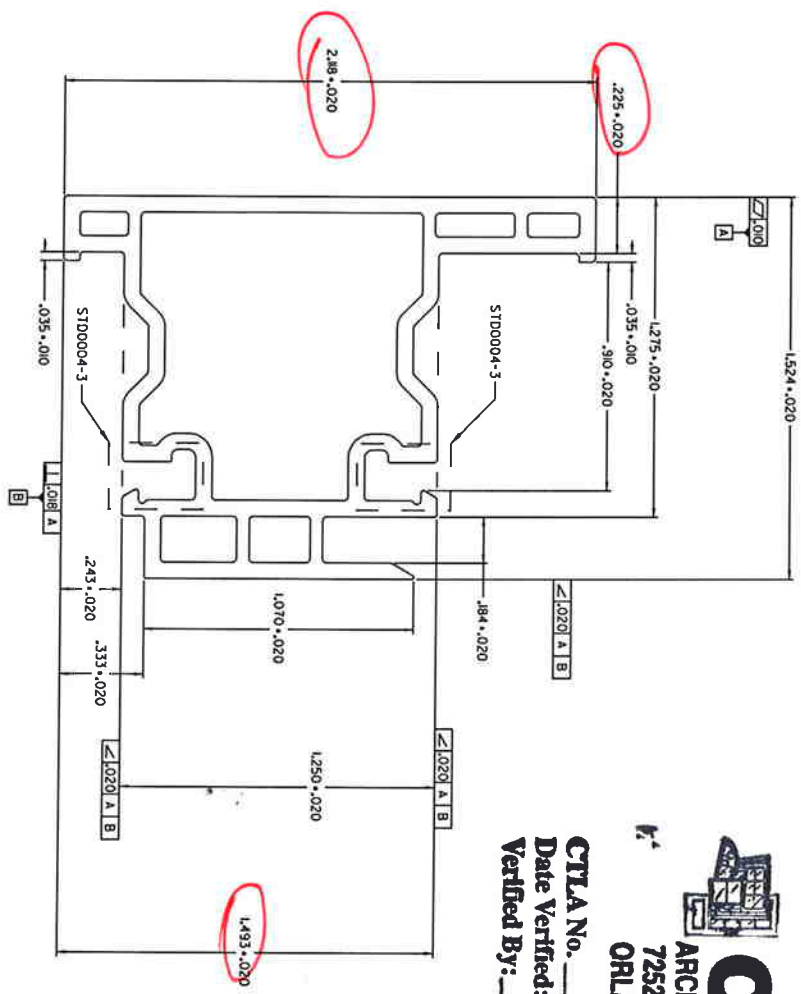
SCALE 1:1

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REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
J	CHANGED TO ONE PAGE PRINT	05/22/01	BWB
K	001-3	06/07/08	BWB

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**ARCHITECTURAL DIVISION**  
 7252 NARCOSSEE ROAD  
 ORLANDO, FLORIDA 32822

CTLA No. 156100 & 156100-1  
 Date Verified: 9/15/06  
 Verified By: [Signature]



- NOTES:
- ST100004 STRAIGHTNESS CLASS C AND LENGTH TOLERANCES APPLY
  - INTERPRET ALL TOLERANCE APPLICATIONS PER ST100004
  - UNSPECIFIED EXTERNAL RADI = .XXX ± .010 / - .005
  - UNSPECIFIED INTERNAL RADI = .XXX ± .020 / - .005
  - UNSPECIFIED INTERNAL WALL THICKNESS = .XXX ± .020
  - UNSPECIFIED INTERNAL WALL THICKNESS = .XXX ± .020

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 DIM ARE IN INCHES  
 ALL UNTOLERANCED  
 DIMENSIONS ARE BASIC  
 INTERPRET DIM AND TOL PER  
 ASME Y14.5M - 1994

THIRD ANGLE PROJECTION

DESIGN BY:	MTC
DATE:	93/08/20
DRAWN BY:	TJM
DATE:	03/08/27
AUTH:	
DATE:	
AUTH:	
DATE:	
FLNAME:	10000851.SH.dgn

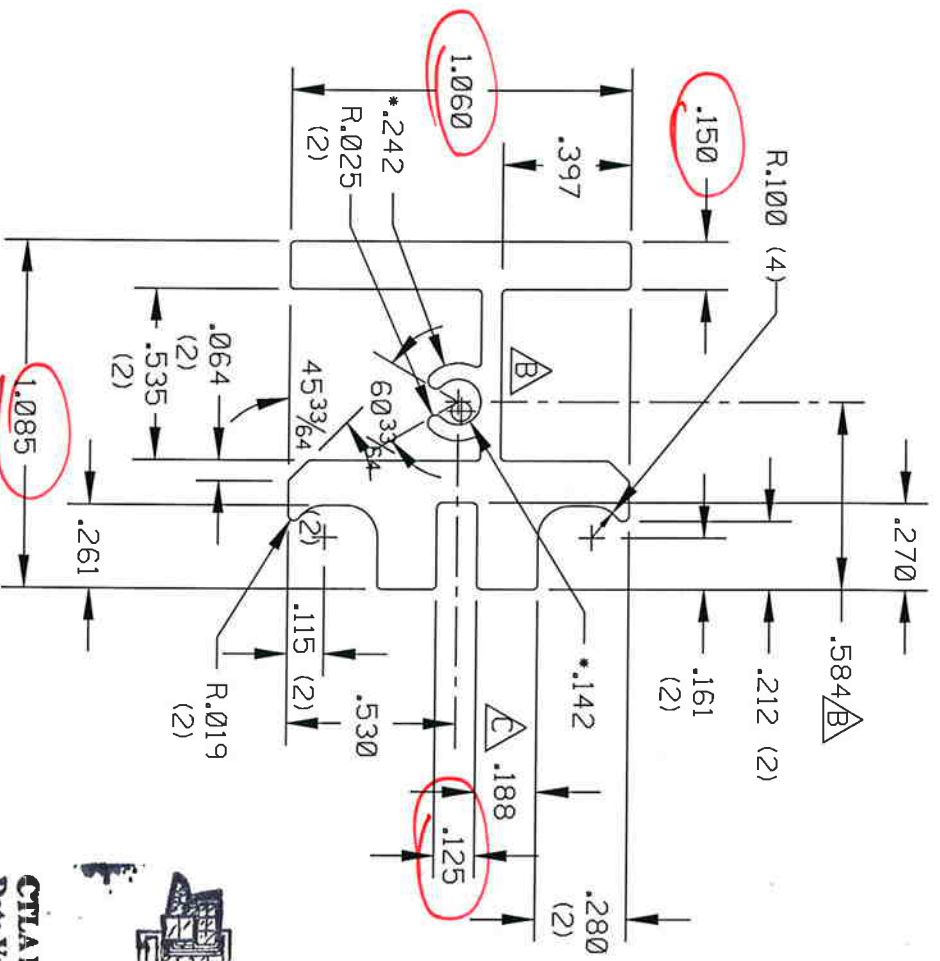
**deceuninck** NORTH AMERICA

**MEETING RAIL**

SCALE: 2:1 (R153/FT) .380

SHEET 1 OF 1

10300084



NOTES

1. ALLOY/TEMPER 6005-T5
2. WALL THICKNESS UNLESS OTHERWISE SHOWN: .062".
3. NO EXPOSED SURFACES.
4. BREAK SHARP CORNERS 0.015R.
5. MOMENTS OF INERTIA:  $I_{xx} = .032$ ;  $I_{yy} = .061$ .
6.  $\phi$  INDICATES CENTROID LOCATION.

**CTL**  
 ARCHITECTURAL DIVISION  
 7252 NARCOOSSEE ROAD  
 ORLANDO, FLORIDA 32822

CTLA No. 15912 & 15911 W-1  
 Date Verified: 9/15/16  
 Verified By: [Signature]



C	RJK	6-8-05	.188 WAS .223
B	RJK	5-18-05	MOVED SCREW BOSS FOR M.R. ATTACH, BRAC
A	RJK	5-3-05	GEN. REVISIONS TO INCREASE Y-Y MOMENT
REV	BY	DATE	CHANGE

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 NORTH AMERICA/Oakland NJ

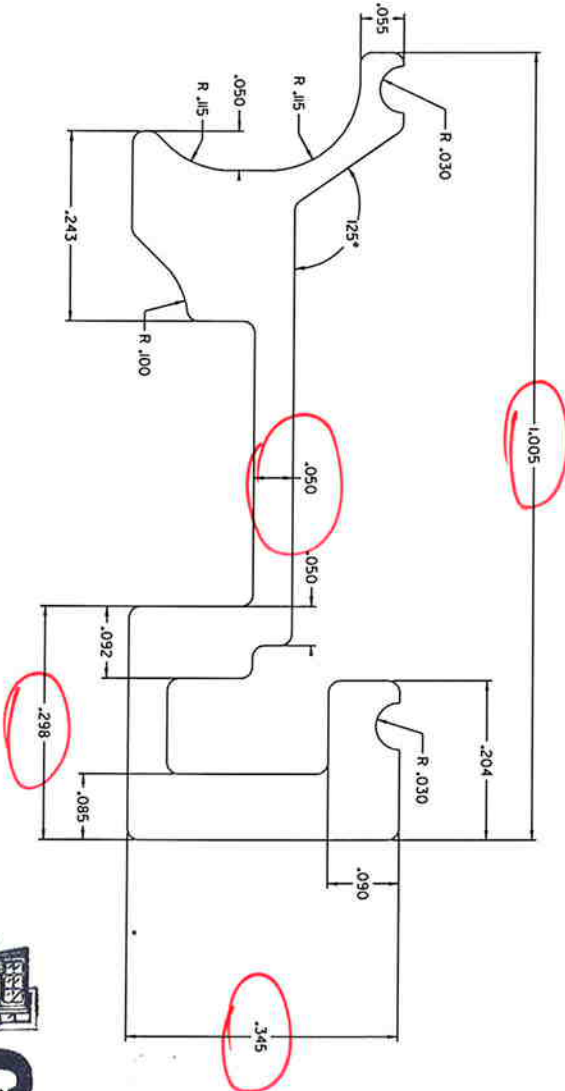
AREA = .442  
 WT/FT = .530  
 PERIMETER = 6.9660L  
 FACTOR = 13  
 AA STD

FILENAME: Alum-5C 145093SH-Mtg. Rail DP50 Rebo

BY RJK DATE 4-21-05 MAT'L NOTE 1 SCALE FULL

DNA IMPACT PROJECT 10300084

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



ALL UNSPECIFIED RADII EQUAL .015

**CTLA**  
 CERTIFIED TESTING LABORATORIES  
 ARCHITECTURAL DIVISION  
 7252 NARCOOSSEE ROAD  
 ORLANDO, FLORIDA 32822

CTLA No. 154102 + 154101-1  
 Date Verified: 9/5/06  
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6005-T5

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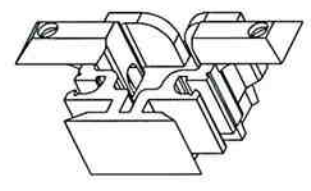
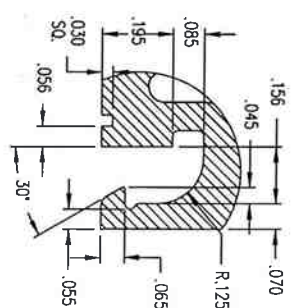
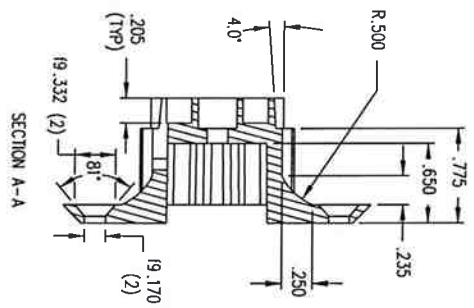
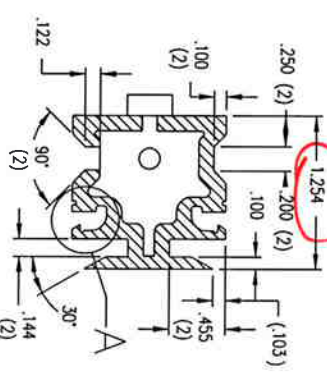
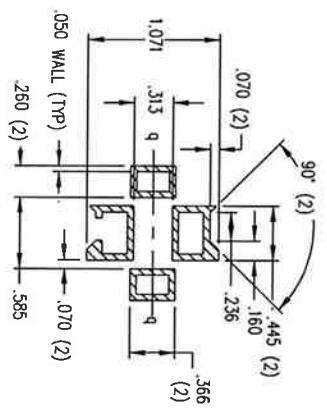
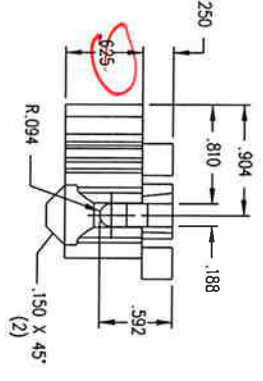
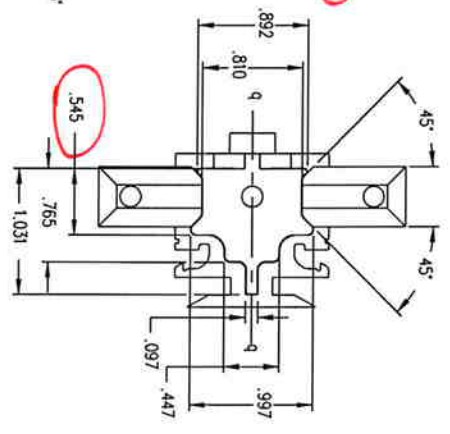
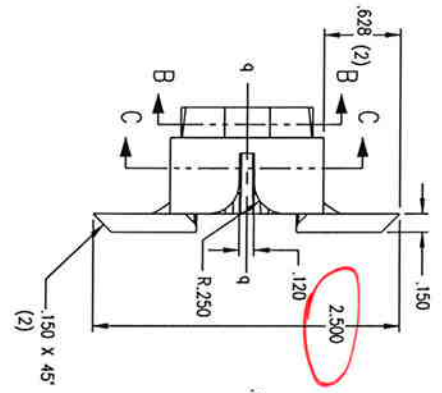
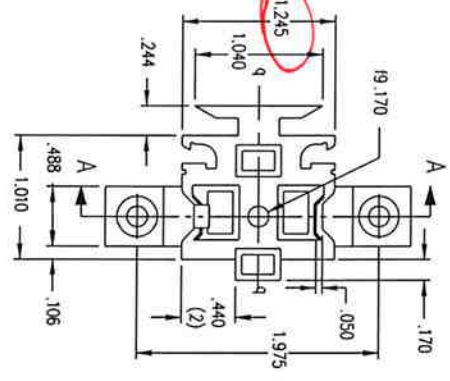
UNLESS OTHERWISE SPECIFIED DIM ARE IN INCHES ALL UNTOLERANCED DIMENSIONS ARE BASIC INTERPRET DIM AND TOL PER ASME Y14.5M - 1994	DESIGN BY:	RJK
	DATE:	05/04/21
THIRD ANGLE PROJECTION	DRAWN BY:	JCM
	DATE:	06/08/24
	AUTH:	DATE:
	FILENAME:	10300082.dgn
<p><b>deceunick</b>          NORTH AMERICA</p> <p>Copyright 2008          381 North Davies Road          Monroeville, OH 45008</p> <p><b>SASH REINFORCEMENT</b></p> <p>SIZE: 8:11          SCALE: 1/8" = 1" LBS./FT. SHEET 1 OF 1</p>		



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 ORLANDO, FLORIDA 32822

CTLA No. 1541w x 1541w-1  
 Date Verified: 9/5/06  
 Verified By: [Signature]

- NOTES:
- \*DIMS TAKEN AT THEORETICAL INTERSECTION.
  - ANY UNSPECIFIED DIMENSIONS WILL BE CONTROLLED BY THE TOOLING MODEL.
  - NO MORE THAN .004 MISMATCH/FLASH.
  - (DIMS) ARE REFERENCE DIMS ARE INSPECTION
  - CAVITY I.D. REQUIRED
  - DIMENSIONS ARE SYMMETRICAL ABOUT q.
  - DRAFT CORING WALLS ONLY 0.5° PER SIDE.

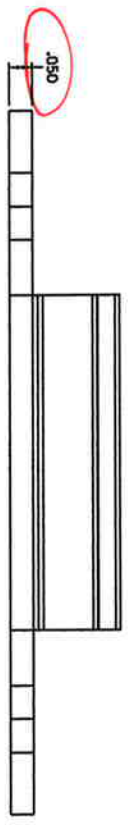
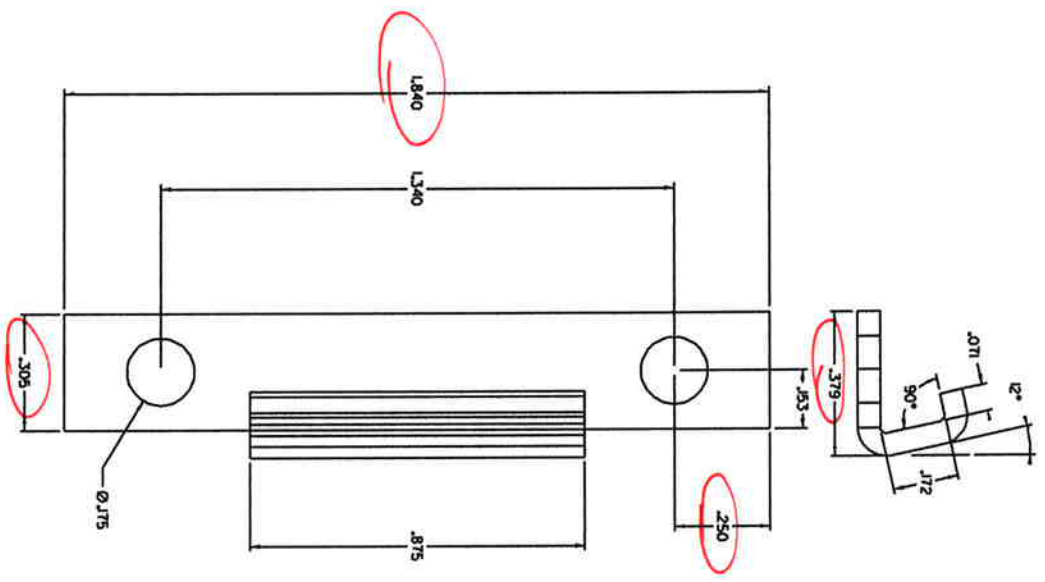


PATENT NUMBER: \_\_\_\_\_  
 STATUS: ~ PATENT INFORMATION ~  
 REGISTERED PATENTS: \_\_\_\_\_

		790 WEST COMMERCIAL AVENUE LOWELL, INDIANA 46356 TELEPHONE NUMBER (219) 696-6950 FAX (219) 696-7758	
MATERIAL: NYLON	BLEND: WHITE	DATE: 12-05-05	OK BY: _____
CUSTOMER: DC	PROJ. #:	DATE: 12-05-05	OK BY: _____
DESIGNER: _____	COMPONENT:	PROJ. #:	DATE: _____
CUBIC INCHES: 0.62	TOLERANCES UNLESS OTHERWISE SPECIFIED:	ANDRES: _____	CAMERON: _____
NOTICE: THIS DRAWING IS THE PROPERTY OF ASHLAND HARDWARE SYSTEMS DESIGN CONCEPT & INFORMATION MAY NOT BE REPRODUCED OR DISCLOSED WITHOUT WRITTEN PERMISSION FROM ASHLAND.	SCALE: 1:1 SHEET: 1 of 1	ASHTON: _____	DATE: _____

E-12512  
 PART DATE: 12-05-05

CAD MAINTAINED, CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



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 ESTIMATED ESTING LABORATORIES  
 ARCHITECTURAL DIVISION  
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 ORLANDO, FLORIDA 32822

CTIA No. 1561W / 1561W-1  
 Date Verified: 9/5/06  
 Verified By: sm

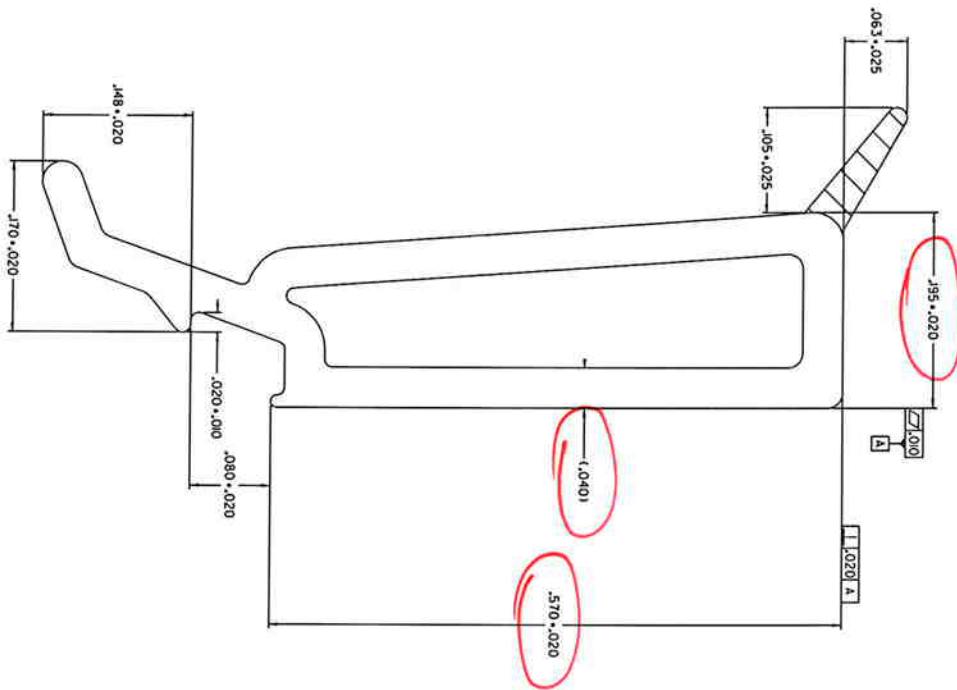
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UNLESS OTHERWISE SPECIFIED DIM ARE IN INCHES ALL UNFRACTIONED DIMENSIONS ARE BASIC INTERPRET DIM AND TOL PER ASME Y14.5M - 1994		DESIGN BY: JDM	DATE: 06/08/02	DATE: 06/08/08	DATE: 06/08/08
THIRD ANGLE PROJECTION		DRAWN BY: JDM	DATE: 06/08/02	DATE: 06/08/08	DATE: 06/08/08
		AUTH: JDM	DATE: 06/08/02	DATE: 06/08/08	DATE: 06/08/08
		FILENAME: SH_DH_SillInterlock.dgn	SCALE: 1/1	SCALE: 1/1	SCALE: 1/1
		<b>decunnic</b> NORTH AMERICA <small>CONCEPT 2001          2110 WILSON AVENUE          MONROE, LA 70502</small>		SH/DH SILL INTERLOCK TRUTH PART 2474I SHEET 1 OF 1	



SCALE 1:1

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.



REVISION HISTORY		
REV	DESCRIPTION	DATE
AC	GD1-3	06/08/17
		BWB

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 ORLANDO, FLORIDA 32822

CTLA No. 1561W & 1561W-1  
 Date Verified: 9/5/16  
 Verified By: *[Signature]*

UNLESS OTHERWISE SPECIFIED  
 DIM ARE IN INCHES  
 ALL UNTOLERANCED  
 DIMENSIONS ARE BASIC  
 INTERPRET DIM AND TOL PER  
 ASME Y14.5M - 1994

THIRD ANGLE PROJECTION

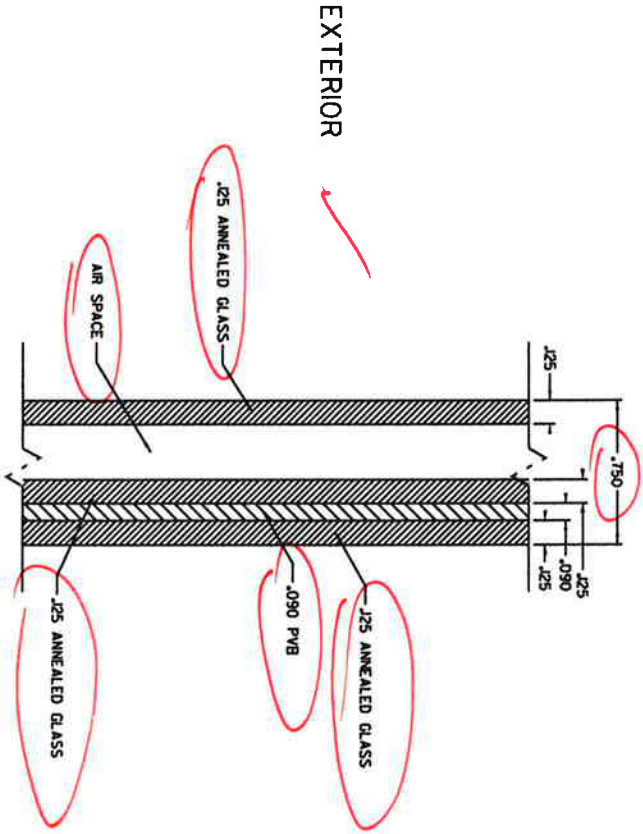
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DESIGN BY:	MTC
DATE:	93/06/01
DRAWN BY:	GRB
DATE:	03/05/12
AUTH:	DATE:
AUTH:	DATE:
AUTH:	DATE:
FLNAME:	10005470.SH
SCALE:	8 1/4
SIZE DWG. NO:	10005470.SH
SCALE:	8 1/4
FILE/PTJ:	043
SHEET:	1 OF 1

- NOTES:
- STANDARD STRAIGHTNESS CLASS E AND LENGTH TOLERANCES APPLY
  - INTERPRET ALL TOLERANCE APPLICATIONS PER STD0013
  - UNSPECIFIED EXTERNAL RADI = .XXX +.010 / -.005
  - UNSPECIFIED EXTERNAL RADI = .XXX +.020 / -.005
  - UNSPECIFIED INTERNAL WALL THICKNESS = .XXX +/- .10%
  - UNSPECIFIED INTERNAL WALL THICKNESS = .XXX +/- .20%

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

REV	STATUS	REV. BY	DESCRIPTION HISTORY	DATE	APPROVED
REV	SH	[ ]	...	MM/DD/YY	---
-	-	-	-	-	-



  
**CTLA**  
 ARCHITECTURAL DIVISION  
 7252 NARCOOSSEE ROAD  
 ORLANDO, FLORIDA 32822  
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UNLESS OTHERWISE SPECIFIED		DESIGN BY: JGM	
DIM ARE IN INCHES		DATE: 06/08/24	
TOL ON ANGLE .1		DRAWN BY: JGM	
2 PL. .01 3 PL. .005		DATE: 06/08/24	
INTERPRET DIM AND TOL PER		DATE: 06/08/24	
ASME Y14.5M - 1994		DATE: 06/08/24	
THIRD ANGLE PROJECTION		DATE: 06/08/24	
[Symbol]		DATE: 06/08/24	
FILE NAME:		SCALE: 1/8" = 1'-0"	
DRAWN BY: JGM		DATE: 06/08/24	
CHECKED BY: JGM		DATE: 06/08/24	
APPROVED BY: JGM		DATE: 06/08/24	
PROJECT: 1421 940H DP-58		SHEET: 1 OF 1	
DRAWN BY: JGM		DATE: 06/08/24	
CHECKED BY: JGM		DATE: 06/08/24	
APPROVED BY: JGM		DATE: 06/08/24	

**document**  
 NORTH AMERICA  
 3/4" OVERALL, .090" PVB  
 LAMINATED GLASS  
 1421 940H DP-58  
 SHEET 1 OF 1



# Sikaflex<sup>®</sup>-552 ←

## High-Strength Structural Assembly Adhesive

### Technical Product Data (typical values)

Chemical base	One-part Silane Terminated Polymer	
Color	White, Black	
Cure mechanism	Moisture-curing	
Density (uncured)	12.1 lb/gal	
VOC (EPA method 24)	0.16 lb/gal	
Non-sag properties	Good	
Application temperature	40–95°F (5-35°C)	
Tack free time <sup>1</sup>	40 min.	
Curing speed	(see diagram 1)	
Shrinkage	<2%	
Shore A-hardness (ASTM D 2240)	50	
Tensile strength (ASTM D 412)	435 psi	
Tensile shear strength (ASTM D 1002)	300 psi	
Elongation at break (ASTM D 412)	300 %	
Tear propagation resistance (ASTM D 624)	85 pli	
Glass transition temperature	-76°F (-60°C)	
Service temperature	Permanent	-40°F to +190°F (-40°C to +90°C)
Short term	4 hours	284°F (140°C)
	1 hour	302°F (150°C)
Shelf life (storage below 80°F (25°C))	Cartridge & Unipac	9 months
	Drum & Hobbock	6 months

<sup>1)</sup> 73°F (23°C) / 50% r.h.

### Description

Sikaflex<sup>®</sup>-552 is a low VOC, high performance, elastic, gap-filling, one-part, silane-terminated polymer structural adhesive that cures on exposure to atmospheric moisture to form a durable elastomer. Sikaflex<sup>®</sup>-552 contains no isocyanate or solvent. Sikaflex<sup>®</sup>-552 is manufactured in accordance with the ISO 9001/ISO 14001 quality assurance system and the responsible care program.

### Product Benefits

- AAMA 805.2-94 certified
- Bonds well to a wide variety of substrates without the need for special pre-treatment
- Resistant to UV radiation
- Resistant to aging and weathering
- Capable of withstanding high dynamic stresses
- Very low VOC content
- Silicone and PVC-free
- Isocyanate-free
- High recovery
- Elastic
- Low odor
- One-part formulation

### Areas of Application

Sikaflex<sup>®</sup>-552 is suitable for structural joints that will be subjected to dynamic stresses. Sikaflex<sup>®</sup>-552 bonds well to a wide variety of substrates and is suitable for making permanent high strength elastic adhesive seals. Suitable substrate materials include wood, metals, metal primers and paint coatings (two-part systems), ceramic materials, plastics and glass. Seek manufacturer's advice before using on transparent materials that are prone to stress cracking.

Industry



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CERTIFIED TESTING LABORATORIES  
ARCHITECTURAL DIVISION  
7252 NARCOOSSEE ROAD  
ORLANDO, FLORIDA 32822

CTLA No. 1561W x 1561W-1  
Date Verified: 9/5/06  
Verified By: ca



Sika Corporation  
 Industry Division  
 30800 Stephenson Highway  
 Madison Heights, MI 48071  
 USA  
 Tel. 248 577 0020  
 Fax 248 577 0810

Further information available at:  
 www.sikaindustry.com  
 SikaFax: 877-663-9727



SikaFlex® 552 2 / 3

CTLA No. 15617 & 15618-1  
 Date Verified: 9/5/06  
 Verified By: \_\_\_\_\_

ARCHITECTURAL DIVISION  
 752 MARCOESSE ROAD  
 ORLANDO, FLORIDA 32822



**HANDLING AND STORAGE:** Store product in closed container in cool dry place (below 77°F, 25°C) when not in use. Protect from frost and humidity. Avoid direct contact. Wear personal protective equipment (chemical resistant gloves/goggles/ clothing) to prevent contact with skin and eyes. Use with adequate

Cartridge	10.5 ounce
Unpac	20 ounce
Hobcock	6 gallon
Drum	51.5 gallon

**Packaging Information**

**KEEP OUT OF REACH OF CHILDREN  
 NOT FOR INTERNAL CONSUMPTION  
 FOR INDUSTRIAL USE ONLY  
 KEEP CONTAINER TIGHTLY CLOSED**

In case of emergency call:  
 Chemtrec: 800-424-9300  
 International: 703-527-3887

- Technical Safety Data Sheets  
 - Material Safety Data Sheets  
 - Technical Data Sheets

Copies of the following publications are available on request at SikaFax: 877-663-9727

**Further Information**

**FIRST AID**  
**Eyes** - Hold eyelids apart and flush thoroughly with tepid water for 15 minutes. **Skin** - Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and tepid water. **Inhalation** - Remove to fresh air. **Ingestion** - Do not induce vomiting. Contact physician immediately if symptoms persist.

Health	2
Flammability	1
Reactivity	0
Personal Protection	C

**HMIS**

**CAUTION: IRRITANT.** - Contains Silane-Terminated Prepolymer (CAS: Mixture). May cause eye/skin/respiratory irritation.

**Limitations**  
 Avoid application below 40°F (5°C) and above 95°F (35°C) as improper surface properties could result. Since the material is moisture cured, provide sufficient exposure to air. Do not apply over cured silicones or urethanes. Avoid contact with excessive amounts of alcohols or alcohol-containing mixtures, as some temporary initial surface tackiness may result. Not designed for direct glazing applications.

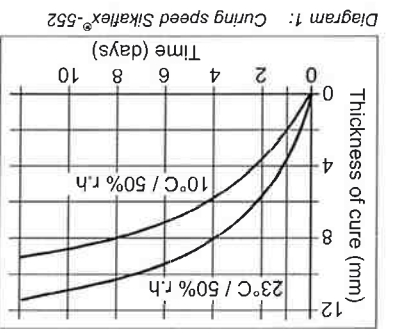
**Overpainting**  
 SikaFlex®-552 can be overpainted before becoming tack-free. The paint, and paint process must be tested for compatibility by carrying out preliminary trials. It should be understood that the hardness and film thickness of the paint may impair the elasticity of the sealant and lead to cracking of the paint film over time.

**Tooling and finishing**  
 To facilitate tooling, wet pointing tool with soapy water. Do not use alcohol or alcohol-containing agents. **Removal**  
 Uncured SikaFlex®-552 may be removed from tools and equipment with suitable solvent. Follow solvent manufacturer's instructions for use and warnings. Once cured, the material can only be removed mechanically. Wash hands thoroughly with soap and water after handling. Do not use solvents!

**Application**  
 To ensure satisfactory conditions for curing, do not apply at temperatures below 40°F (5°C) or above 95°F (35°C). The optimum temperature for substrate and sealant is between 60°F (15°C) and 75°F (25°C). For suitable pump system please contact the System Engineering Department of Sika Industry at 248-577-0020.

**Method of Application**  
**Surface preparation**  
 The Surfaces must be clean, dry and free from all traces of grease, oil, wax and dust. The adhesion of SikaFlex®-552 can be improved by wiping the joint with Sika®Cleaner-226 (a cleaning and activating agent). Advice on specific applications is available from the Technical Service Department of Sika Industry at 888-832-7452. Substrate must have appropriate corrosion protection prior to application of sealant.

**Chemical Resistance**  
 SikaFlex®-552 is resistant to UV radiation, fresh water, seawater and proprietary aqueous cleaning agents; temporarily resistant to animal fats and oils; not resistant to organic acids, concentrated mineral acids, caustic solutions or solvents. The above information is offered for general guidance only. Advice on specific applications will be given on request. Contact the Technical Service Department of Sika Industry at 888-832-7452.



**Cure Mechanism**  
 SikaFlex®-552 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is lower and the curing reaction proceeds a little more slowly. If SikaFlex®-552 is used in combination with a PUR adhesive, the polyurethane adhesive must be fully cured before seam sealing with SikaFlex®-552.

general and local exhaust. Use properly fitted NIOSH respirator if ventilation is poor. Remove contaminated clothing and launder before reuse.

**CLEANUP:** Avoid contact. Uncured material can be removed from tools and equipment using suitable solvent. Follow solvent manufacturer's warnings and instructions for use. Cured product can only be removed mechanically. Wash thoroughly with soap and water after handling. Do not use solvents! In case of spill, wear personal protective equipment (chemical resistant goggles/clothing/gloves). Ventilate area and collect spill. If ventilation is poor use properly fitted NIOSH respirator. Contain spill and collect with absorbent material. Dispose of in accordance with applicable local, state and federal regulations.

**LIMITED WARRANTY**  
SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Technical Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor.  
**NO OTHER WARRANTIES IMPLIED OR EXPRESS SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

Further information available at:  
www.sikaindustry.com  
SikaFax: 877-663-9727

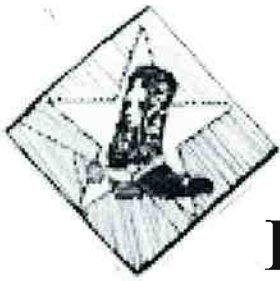
Sika Corporation  
Industry Division  
30800 Stephenson Highway  
Madison Heights, MI 48071  
USA  
Tel. 248 577 0020  
Fax 248 577 0810



OTL FIELD TESTING LABORATORIES  
ARCHITECTURAL DIVISION  
7252 NARCOOSSEE ROAD  
ORLANDO, FLORIDA 32822  
CTLA No. 15410-1561W-1  
Date Verified: 9/5/06  
Verified By: [Signature]







# Four-JAKS, Inc Hardware

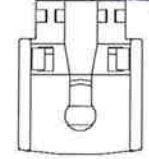
## FS Constant Force Balance System

### Preassembled 1/2 Constant Force Balance System

Part #	Preassembled Coil(s) & FS Shoe	Sash #
S-A55003	3 Pound Assembled 530 FS Shoe	6
S-A55004	4 Pound Assembled 530 FS Shoe	8
S-A55005	5 Pound Assembled 530 FS Shoe	10
S-A55006	6 Pound Assembled 530 FS Shoe	12
S-A55007	7 Pound Assembled 530 FS Shoe	14
S-A55008	8 Pound Assembled 530 FS Shoe	16
S-A55009	9 Pound Assembled 530 FS Shoe	18
S-A55010	10 Pound Assembled 530 FS Shoe	20
S-A55011	11 Pound Assembled 530 FS Shoe	22
S-A55012	12 Pound Assembled 530 FS Shoe	24
S-A55013	13 Pound Assembled 530 FS Shoe	26
S-A55014	14 Pound Assembled 530 FS Shoe	28
S-A55015	15 Pound Assembled 530 FS Shoe	30
S-A55016	16 Pound Assembled 530 FS Shoe	32
S-A55017	17 Pound Assembled 530 FS Shoe	34
S-A55018	18 Pound Assembled 530 FS Shoe	36
S-A55019	19 Pound Assembled 530 FS Shoe	38
-----	-----Continues up to 72 lbs-----	----
S-A55036	36 Pound Assembled 530 FS Shoe	72
S-TCOVER	1/2" Top Spring Cover	
S-SCOVER	1/2" Stacking Spring Cover	
S-PB254	2.5" 4 Hole FS Pivot Bar	
Cover Screw	# 6 x 7/8 PH FLT HD 410	
Pivot Bar Screw	#8 x 3/8 PH Thread Cutting	

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 ARCHITECTURAL DIVISION  
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 ORLANDO, FLORIDA 32822

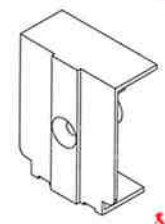
CTLA No. 15613 & 15614-1  
 Date Verified: 9/5/06  
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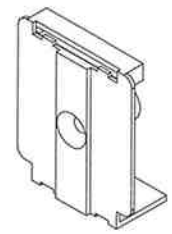
FS Assembly  
3 to 9 lbs



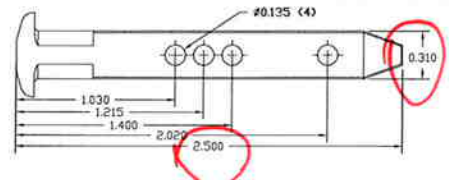
FS Assembly  
10 to 18 lbs



1/2 Top Spring Cover  
S-TCOVER



1/2 Stacking Spring Cover  
S-SCOVER



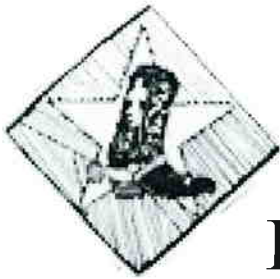
FS Pivot Bar  
S-PB254

Made in USA

### Four-JAKS, Inc.

107 Spruce Street,  
 Fairlea West Virginia 24902  
 Phone (304)645-6716 Fax (304) 645-4885  
 www.four-jaks.com

- Quality products, priced right, with customer satisfaction a priority.
- Injection molding, metal die casting, metal stamping, and custom tooling.



# Four-JAKS, Inc Hardware

## FS Constant Force Balance System

### Unassembled 1/2 Constant Force Balance System

PART NUMBER	DESCRIPTION
S-H263S	3 Lb. 1/2" x 26" Short Tail Spring
S-H404S	4 Lb. 1/2" x 40" Short Tail Spring
S-H405S	5 Lb. 1/2" x 40" Short Tail Spring
S-H405L	5 Lb. 1/2" x 40" Long Tail Spring
S-H406S	6 Lb. 1/2" x 40" Short Tail Spring
S-H406L	6 Lb. 1/2" x 40" Long Tail Spring
S-H407S	7 Lb. 1/2" x 40" Short Tail Spring
S-H407L	7 Lb. 1/2" x 40" Long Tail Spring
S-H408S	8 Lb. 1/2" x 40" Short Tail Spring
S-H408L	8 Lb. 1/2" x 40" Long Tail Spring
S-H409S	9 Lb. 1/2" x 40" Short Tail Spring
S-H409L	9 Lb. 1/2" x 40" Long Tail Spring
S-BOBBIN	3/8" & 1/2" Spring Bobbin Roller
S-550FSHOE	.550" x 1.250" FS Shoe
S-TCOVER	1/2" Top Spring Cover
S-SCOVER	1/2" Stacking Spring Cover
S-PB254	2.5" 4 Hole FS Pivot Bar
Cover Screw	# 6 x 7/8 PH FLT HD 410
Pivot Bar Screw	#8 x 3/8 PH Thread Cutting
Spring Screw	# 8 x 3/8 PH FLT HD 410

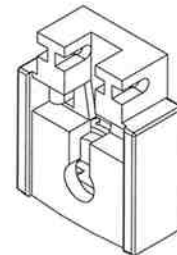

  
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 ORLANDO, FLORIDA 32822



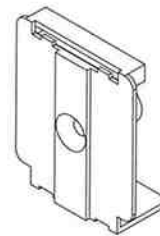
1/2 FS Coil  
S-H40xx

CTLA No. 156147 x 156147-1  
 Date Verified: 9/5/06  
 Verified By: [Signature]

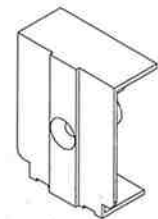
Spring Bobbin  
S-BOBBIN



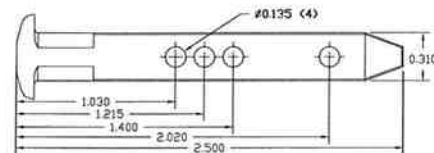
FS-Shoe  
S-550FSHOE



1/2 Top Spring Cover  
S-TCOVER



1/2 Stacking Spring Cover  
S-SCOVER



FS Pivot Bar  
S-PB254

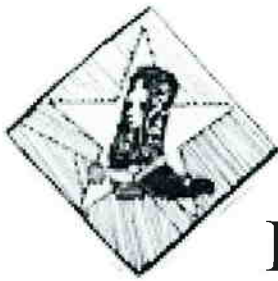
Made in USA

### Four-JAKS, Inc.

107 Spruce Street,  
 Fairlea West Virginia 24902  
 Phone (304)645-6716 Fax (304) 645-4885  
 www.four-jaks.com

 Quality products, priced right, with customer satisfaction a priority.

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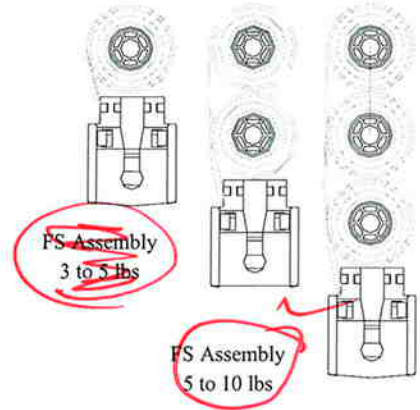


# Four-JAKS, Inc Hardware

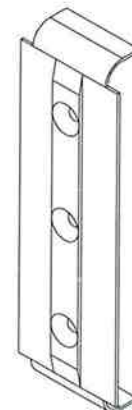
## FS Constant Force Balance System

### Assembled Egress 3/8 Constance Force Balance System

PART NUMBER	DESCRIPTION
S-A5503 3/8	3 Pound Assembled 530 FS Shoe
S-A5504 3/8	4 Pound Assembled 530 FS Shoe
S-A5505 3/8	5 Pound Assembled 530 FS Shoe
S-A5506 3/8	6 Pound Assembled 530 FS Shoe
S-A5507 3/8	7 Pound Assembled 530 FS Shoe
S-A5508 3/8	8 Pound Assembled 530 FS Shoe
S-A5509 3/8	9 Pound Assembled 530 FS Shoe
S-A55010 3/8	10 Pound Assembled 530 FS Shoe
S-A55011 3/8	11 Pound Assembled 530 FS Shoe
S-A55012 3/8	12 Pound Assembled 530 FS Shoe
S-A55013 3/8	13 Pound Assembled 530 FS Shoe
S-A55014 3/8	14 Pound Assembled 530 FS Shoe
S-A5515 3/8	15 Pound Assembled 530 FS Shoe
S-ECOVER	Egress 3/8" Triple Spring Cover
S-PB254	2.5" 4 Hole FS Pivot Bar
Cover Screw	# 6 x 7/8 PH FLT HD 410



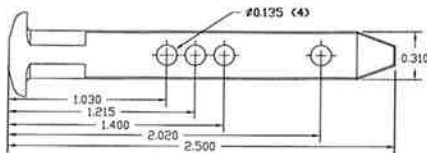
FS Assembly  
10 to 15 lbs



Egress 3/8" Triple Spring Cover  
S-ECOVER



CTLA No. 15412 & 15614-1  
Date Verified: 9/5/06  
Verified By: [Signature]



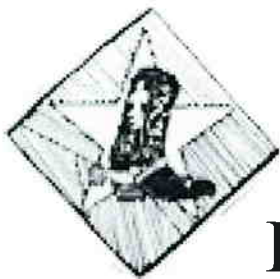
FS Pivot Bar  
S-PB254

Made in USA

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# Four-JAKS, Inc Hardware

## FS Constant Force Balance System

### Unassembled Egress 3/8 Constance Force Balance System

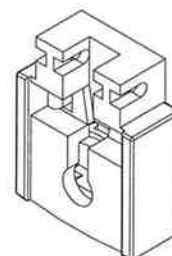
PART NUMBER	DESCRIPTION
S-3394-3S	3 Lb. 40" Egress Short Tail Spring
S-3394-3L	3 Lb. 40" Egress Long Tail Spring
S-3394-4S	4 Lb. 40" Egress Short Tail Spring
S-3394-4L	4 Lb. 40" Egress Long Tail Spring
S-3394-5S	5 Lb. 40" Egress Short Tail Spring
S-3394-5L	5 Lb. 40" Egress Long Tail Spring
S-BOBBIN	3/8" & 1/2" Spring Bobbin Roller
S-550FSHOE	.550" x 1.250" FS Shoe
S-ECOVER	Egress 3/8" Triple Spring Cover
S-PB254	2.5" 4 Hole FS Pivot Bar
Cover Screw	# 6 x 7/8 PH FLT HD 410
Pivot Bar Screw	#8 x 3/8 PH Thread Cutting
Spring Screw	# 8 x 3/8 PH FLT HD 410



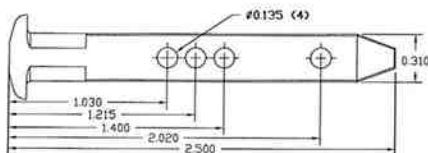
3/8 FS Coil  
S-3394-xx



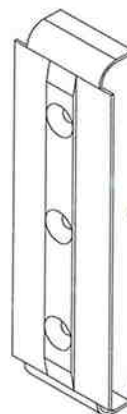
Spring Bobbin  
S-BOBBIN



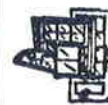
FS-Shoe  
S-550FSHOE



FS Pivot Bar  
S-PB254



Egress 3/8" Triple Spring Cover  
S-ECOVER



**CTL**  
CERTIFIED TESTING LABORATORIES

ARCHITECTURAL DIVISION  
7252 NARCOOSSEE ROAD  
ORLANDO, FLORIDA 32822

CTLA No. 1561W & 1561W-1

Date Verified: 9/5/06

Verified By: [Signature] Made in USA

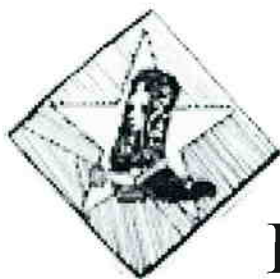
### Four-JAKS, Inc.

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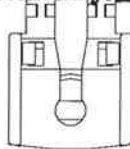
## FS Constant Force Balance System

### Assembled 3/4 Constant Force Balance System

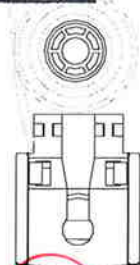
Part #	Assembled Coil(s) & FS Shoe	Sash #
S-A85003-385	3 Pound Assembled 485 FS Shoe	6
S-A85004-385	4 Pound Assembled 485 FS Shoe	8
S-A85005-385	5 Pound Assembled 485 FS Shoe	10
S-A85006-385	6 Pound Assembled 485 FS Shoe	12
S-A85007-385	7 Pound Assembled 485 FS Shoe	14
S-A85008-385	8 Pound Assembled 485 FS Shoe	16
S-A85009-385	9 Pound Assembled 485 FS Shoe	18
S-A85010-385	10 Pound Assembled 485 FS Shoe	20
S-A85011-385	11 Pound Assembled 485 FS Shoe	22
S-A85012-385	12 Pound Assembled 485 FS Shoe	24
S-A85013-385	13 Pound Assembled 485 FS Shoe	26
S-A85014-385	14 Pound Assembled 485 FS Shoe	28
S-A85015-385	15 Pound Assembled 485 FS Shoe	30
S-A85016-385	16 Pound Assembled 485 FS Shoe	32
S-A85017-385	17 Pound Assembled 485 FS Shoe	34
S-A85018-385	18 Pound Assembled 485 FS Shoe	36
S-A85019-385	19 Pound Assembled 485 FS Shoe	38
-----	-----Continues up to 72 lbs-----	----
S-A85036-385	36 Pound Assembled 485 FS Shoe	72
S-TBCOVER S-TBCOVERext	3/4" Top Spring Cover Exterior 3/4" Top Spring Cover Interior	
S-SBCOVER S-SBCOVERext	3/4" Stacking Spring Cover Exterior 3/4" Stacking Spring Cover Interior	
S-PB254	2.5" 4 Hole FS Pivot Bar	
Cover Screw	# 6 x 7/8 PH FLT HD 410	
Pivot Bar Screw	#8 x 3/8 PH Thread Cutting	

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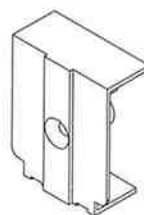
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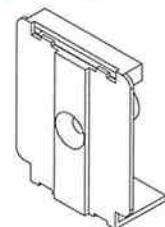
FS Assembly



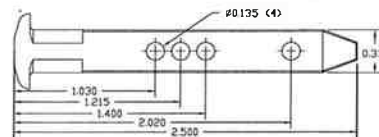
FS Assembly  
up to 4 coils



3/4 Top Spring Cover  
S-TBCOVER  
S-TBCOVERext



3/4 Stacking Spring Cover  
S-SBCOVER  
S-SBCOVERext



FS Pivot Bar  
S-PB254

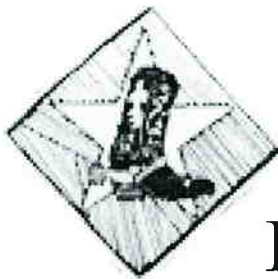
Made in USA

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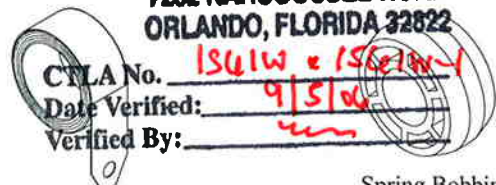
## FS Constant Force Balance System

### Unassembled 3/4 Constant Force Balance System

PART NUMBER	DESCRIPTION
S-B263S	3 Lb. 3/4" x 26" Short Tail Spring
S-B334S	4 Lb. 3/4" x 40" Short Tail Spring
S-B335S	5 Lb. 3/4" x 40" Short Tail Spring
S-B335L	5 Lb. 3/4" x 40" Long Tail Spring
S-B406S	6 Lb. 3/4" x 40" Short Tail Spring
S-B406L	6 Lb. 3/4" x 40" Long Tail Spring
S-B407S	7 Lb. 3/4" x 40" Short Tail Spring
S-B407L	7 Lb. 3/4" x 40" Long Tail Spring
S-B408S	8 Lb. 3/4" x 40" Short Tail Spring
S-B408L	8 Lb. 3/4" x 40" Long Tail Spring
S-B409S	9 Lb. 3/4" x 40" Short Tail Spring
S-B409L	9 Lb. 3/4" x 40" Long Tail Spring
S-B4010S	10 Lb. 3/4" x 40" Long Tail Spring
S-B4010L	10 Lb. 3/4" x 40" Long Tail Spring
S-BBOBBIN	3/4" Spring Bobbin Roller
S-850FSHOE	.850" x 1.250" FS Shoe
S-TBCOVER S-TBCOVERext	3/4" Top Spring Cover Exterior 3/4" Top Spring Cover Interior
S-SBCOVER S-SBCOVERext	3/4" Stacking Spring Cover Exterior 3/4" Stacking Spring Cover Interior
S-PB254	2.5" 4 Hole FS Pivot Bar
Cover Screw	# 6 x 7/8 PH FLT HD 410
Pivot Bar Screw	# 8 x 3/8 PH Thread Cutting
Spring Screw	# 8 x 3/8 PH FLT HD 410



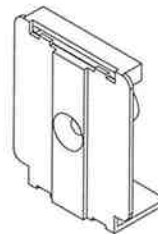
ARCHITECTURAL DIVISION  
7252 NARCOOSSEE ROAD  
ORLANDO, FLORIDA 32822



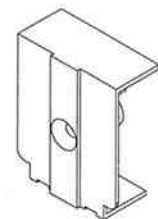
3/4 FS Coil  
S-B40xx

Spring Bobbin  
S-BBOBBIN

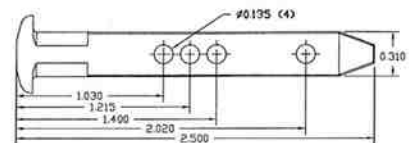
FS-Shoe  
S-850FSHOE



3/4 Top Spring Cover  
S-TBCOVER  
S-TBCOVERext



3/4 Stacking Spring Cover  
S-SBCOVER  
S-SBCOVERext



FS Pivot Bar  
S-PB254

Made in USA

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# SUGGESTED HARDWARE SUPPLIERS

1/25/2006



SOURCE CODE	COMPANY NAME	SOURCE CODE	COMPANY NAME
A	DAYTON TECHNOLOGIES	AA	RO-MAI
B	BLOCK IRON SUPPLY	BB	FRANK LOWE RUBBER & GASKET CO.
C	CALDWELL	CC	H.O. PRODUCTS
D	ASHLAND PRODUCTS	DD	PRODUCT DESIGN AND DEVELOPMENT
E	ADEPT	EE	NORTON COMPANY
F	AMESBURY	FF	LAKE COUNTRY SALES
G	TRUTH	GG	LAVELLE INDUSTRIES, INC.
H	ALLEN STEVENS	HH	NORTH AMERICAN DIE CASTING
I	SCHLEGEL	II	DECO PRODUCTS COMPANY
J	SAUNDERS ENGINEERING	JJ	HARDWARE TECHNOLOGIES
K	UNIQUE	KK	DEL-MAR ENGINEERING
L	3M	LL	ITW PLASTIGLIDE
M	MICRO PLASTICS	MM	QUALITY GROUP
N	NICHOLS HOMESHIELD	NN	JIM WALTER WINDOW COMPONENTS, INC.
O	AEROLITE ALUMINUM EXTRUSION CO.	OO	REFLECTOLITE (Bought by Truth)
P	PLASTIC PROFILES	PP	ANCHOR SCREW & BOLT CO.
Q	SCREEN CLOTH MANUFACTURER	QQ	ALFAST CORPORATION
R	GLASS SUPPLIER	RR	HYGRADE
S	INTERNATIONAL EXTRUSION	SS	AMERICAN SEALANTS, INC.
T	NOVAGARD	TT	KNAPE & VOGT
U	ARLON	UU	CLOSETMAID
V	VEC	VV	PREFERRED ENGINEERING PRODUCTS
W	TREMCO	WW	OMEGA BALANCE CO., INC.
X	RABBE CORP	XX	ROTO ARCHITECTURAL HARDWARE
Y	S & S PLASTICS	YY	ZATKOFF SEALS
Z	MERCHANTS HARDWARE	ZZ	UNITED DIE & MANUFACTURING COMPANY

SOURCE CODE	COMPANY NAME	SOURCE CODE	COMPANY NAME
AAA	ALUMAROLL SPECIALTY CO.	AAAA	FOUR - JAKS
BBB	BALANCE SYSTEMS INC.	BBBB	PROFILE EXTRUSION CO.
CCC	SPENCER PRODUCTS CO.	CCCC	NATIONWIDE INDUSTRIES, INC.
DDD	SASH CONTROLS INC.	DDDD	ELIXIR INDUSTRIES
EEE	ASTRO SHAPES INC.	EEEE	ALTEC
FFF	DOW TECH PLASTICS	FFFF	ACTIVE PRODUCT
GGG	BAYFORM	GGGG	
HHH	HYGRADE	HHHH	
III	CURBELL PLASTICS	IIII	
JJJ	ACCUMETRIC INC.	JJJJ	
KKK	KTS GLASS TECHNOLOGIES, INC.	KKKK	
LLL	DOW CORNING CORPORATION	LLLL	
MMM	WALTER & SIMPSON SALES, INC.	MMMM	
NNN	MITCHELL METAL PRODUCTS, INC.	NNNN	
OOO	ALCOA ALUMINUM EXTRUSIONS, INC.	OOOO	
PPP	LMT PRODUCTS CORP.	PPPP	
QQQ	QUALITY FENCING & SUPPLY, LLC	QQQQ	
RRR	GAER MOLD	RRRR	
SSS	BUILDERS HARDWARE	SSSS	
TTT	DAKOTA BALANCE	TTTT	
UUU	HUGHES SUPPLY	UUUU	
VVV	CAST-ALL	VVVV	
WWW	HILL DESIGN	WWWW	
XXX	RADISSON INDUSTRIES	XXXX	
YYY	S.I.L. PLASTIC SALES & SUPPLIES INC.	YYYY	
ZZZ	CAN ART ALUMINUM EXTRUSION INC.	ZZZZ	

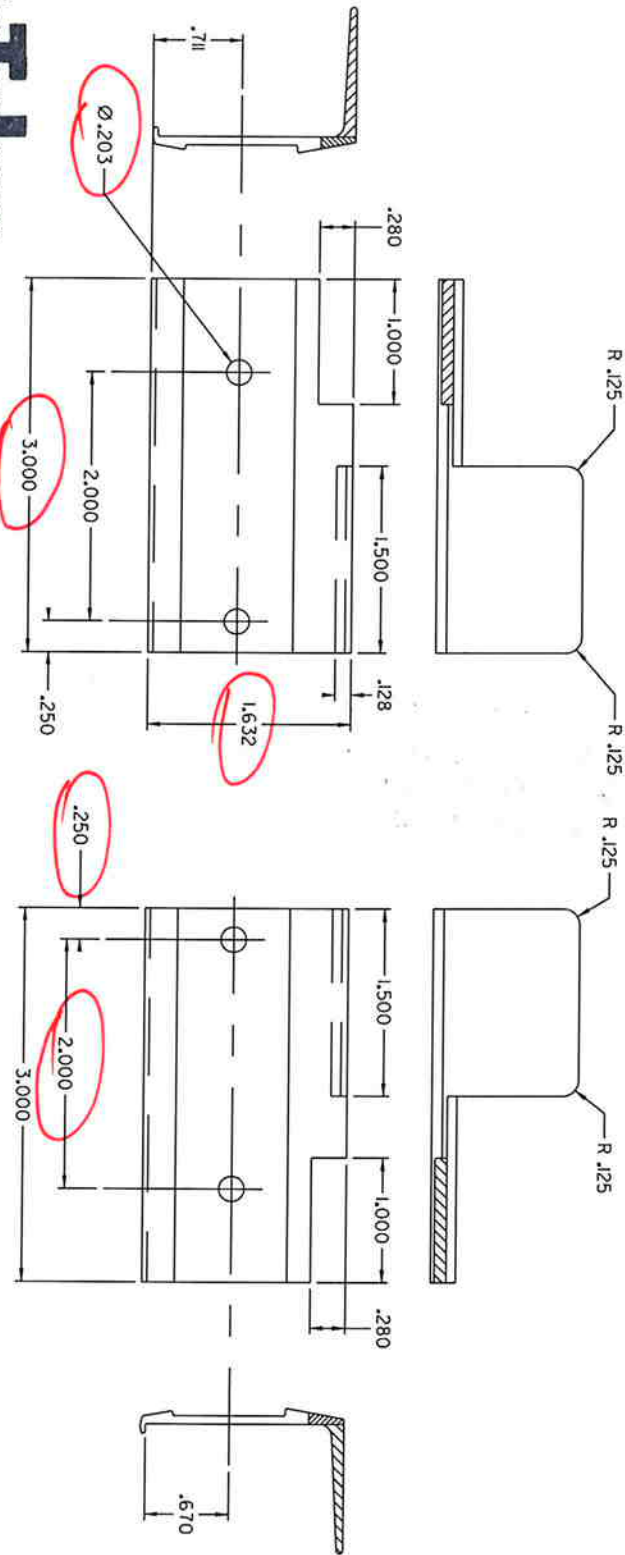


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 Date Verified: 9/5/06  
 Verified By: [Signature]

**Dayton Technologies**

**Vinyl Building Products**

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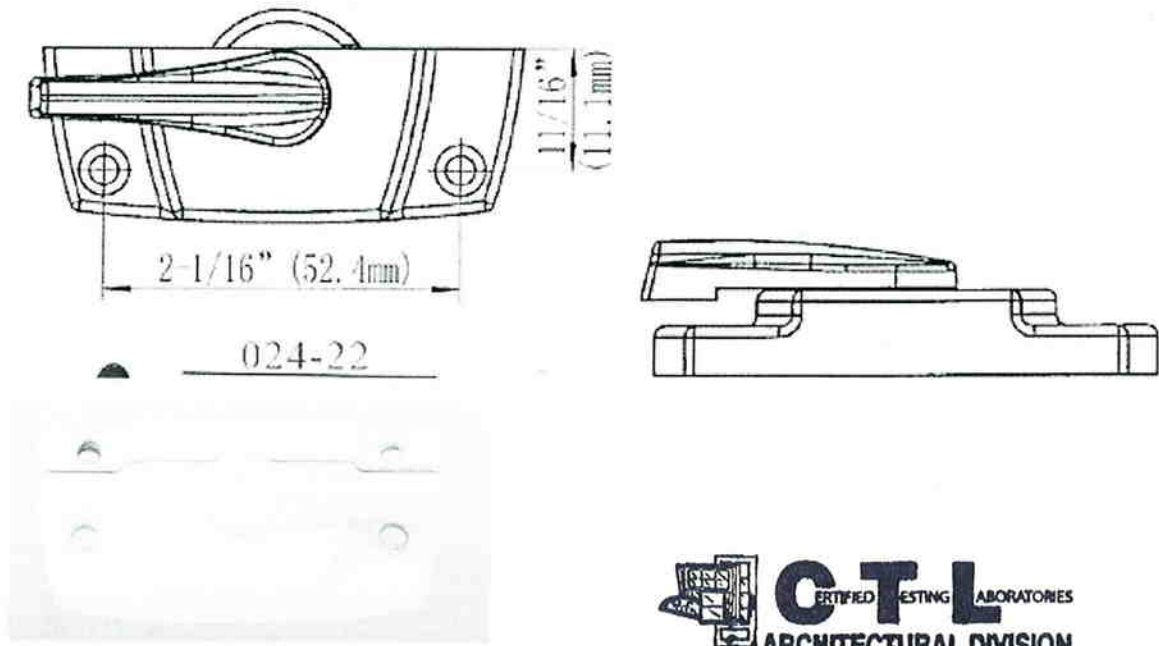
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UNLESS OTHERWISE SPECIFIED DIM ARE IN INCHES ALL UNTOLERANCED DIMENSIONS ARE BASIC INTERPRET DIM AND TOL PER ASME Y14.5M - 1994		THIRD ANGLE PROJECTION	
DESIGN BY:	RJK	FILENAME:	FILE NAME
DATE:	06/02/01	DATE:	
DRAWN BY:	JGM	DATE:	
DATE:	06/08/09	DATE:	
AUTH:		DATE:	
AUTH:		DATE:	
NAME:		SIZE/DWG. NO:	10300087
deceuninck		SCALE:	LBS./FT., LBS./FT., SHEET: 1 OF 1
NORTH AMERICA		REV.	NEW
COPYRIGHT 2008 351 NORTH GARDNER ROAD MONROE, OHIO 43001		SH IMPACT CLIP	

# Active Product

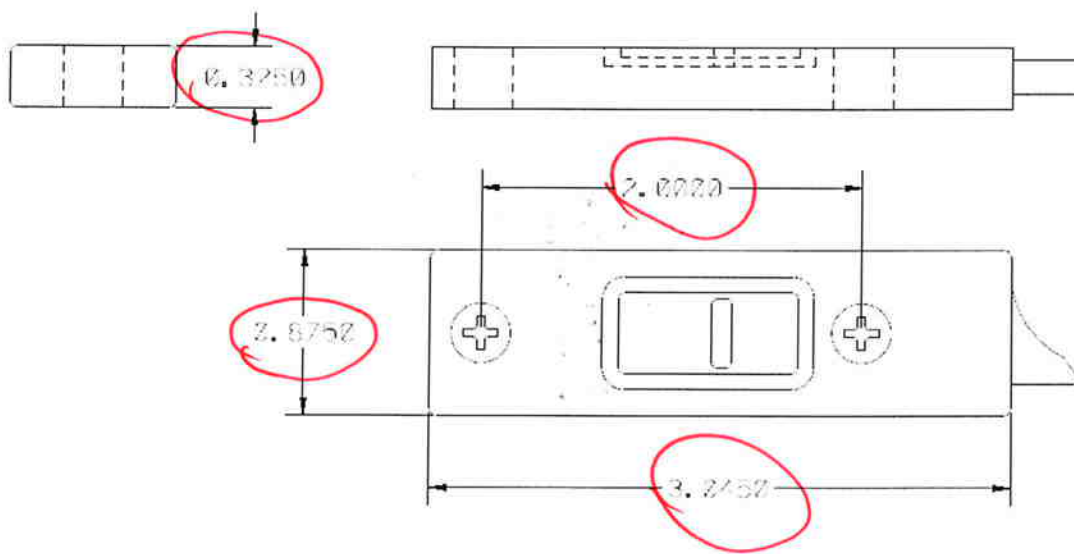
Lock Part # CW024-22 ✓



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ARCHITECTURAL DIVISION  
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ORLANDO, FLORIDA 32822

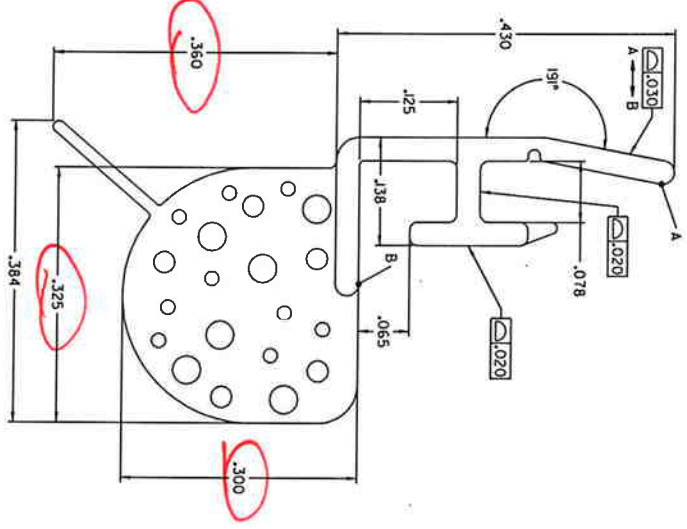
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Date Verified: 9/5/06  
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Tilt Latch Part # 8032 L/R



REVISION HISTORY			
REV	DESCRIPTION	DATE	APPROVED
C	CHANGED TO SINGLE PAGE FORMAT	05/10/10	BWB

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CTLA No. 150111 v 150111-1  
 Date Verified: 9/15/06  
 Verified By: \_\_\_\_\_

UNLESS OTHERWISE SPECIFIED		DESIGN BY: JOE L	
DIM ARE IN INCHES		DATE: 9/7/06/12	
ALL UNTOLERANCED DIMENSIONS ARE BASIC		DRAWN BY: JOE L	
INTERPRET DIM AND TOL PER ASME Y14.5M - 1994		DATE: 9/7/06/12	
THIRD ANGLE PROJECTION		DATE: _____	
FILE NAME: 10008206_SH.dgn		DATE: _____	
SCALE: 8:1 (FBS/FT)		SHEET: 1 OF 1	

SEE SEPARATE PARTS LIST

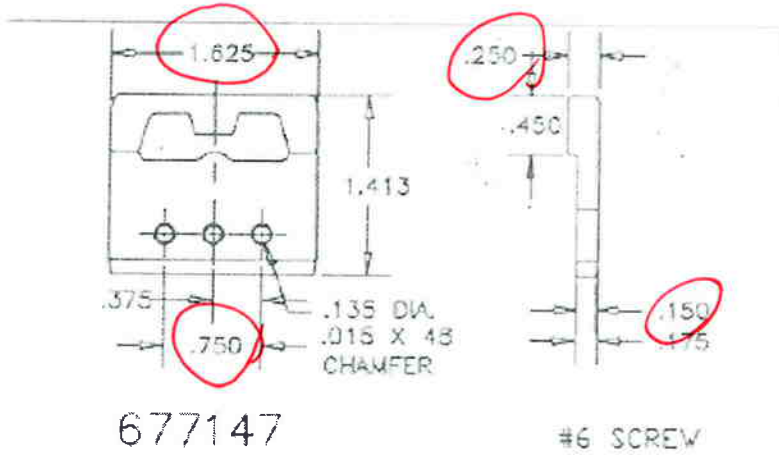
**decounlncK**  
 NORTH AMERICA  
 COMPANY 200  
 30 NORTH AVENUE ROAD  
 MONROE, OHIO 45030

BULB SEAL

1. PERFECT FORM NOT REQUIRED AT MMC.
2. UNLESS OTHERWISE SPECIFIED:
  - Ø = .040 MIN
  - ± = .020 MIN
  - ALL OVER EXCEPT INTERNAL HOLLOW
3. ALL BASIC DIMENSIONS INCORPORATED IN ENGINEERING CAD FILE.
4. PROFILE OF SURFACE FEATURE CONTROLS ARE OVER UNIT LENGTH BASIC.
5. SEE CURRENT REV OF DIM IN-1 FOR EXPLANATION OF PART IDENTIFICATION NUMBERS.
6. SEE CURRENT REV OF DIM IN-1 FOR EXPLANATION OF PART IDENTIFICATION NUMBERS.
7. DIM IS LENGTH OF PART PER 'STDO0013' AND LENGTH TOLERANCES APPLY.
8. SPECIFICATION 10008206 REV NEW APPLIES.
9. PACKAGING ARRANGEMENT 10008206PA REV NEW APPLIES.
10. UNSPECIFIED EXTERNAL RADI = CR .015 +.010 / -.005 WHEN VIEWED WITHOUT MAGNIFICATION.
11. UNSPECIFIED INTERNAL RADI = CR .015 +.020 / -.005 WHEN VIEWED WITHOUT MAGNIFICATION.
12. UNSPECIFIED EXTERNAL WALL THICKNESS = .025 - .035
13. ∅ = FIND NUMBER RELATING TO THE PARTS LIST.


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# 677 SERIES KEEPERS



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CTLA No. 1561W x 1541W-1  
Date Verified: 9/5/06  
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 **DECO** DECO PRODUCTS COMPANY  
506 Sanford Street  
Decorah, Iowa 52101

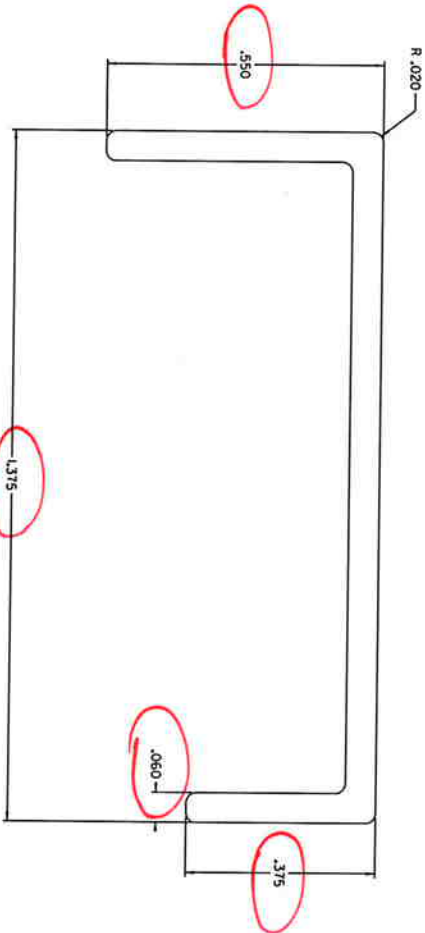




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-	-	-

SCALE 1:1



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6005-T5

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THIRD ANGLE PROJECTION		DRAWN BY: JCM	DATE: 06/08/14
FILE NAME		DATE	DATE
FILE NAME		DATE	DATE

**deceunick** CORPORATION  
 NORTH AMERICA  
 301 NORTH LAMAR ROAD  
 MONROE, LA 70501

**SILL REINFORCEMENT**

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 SCALE: 4:1  
 SHEET: 1 OF 1