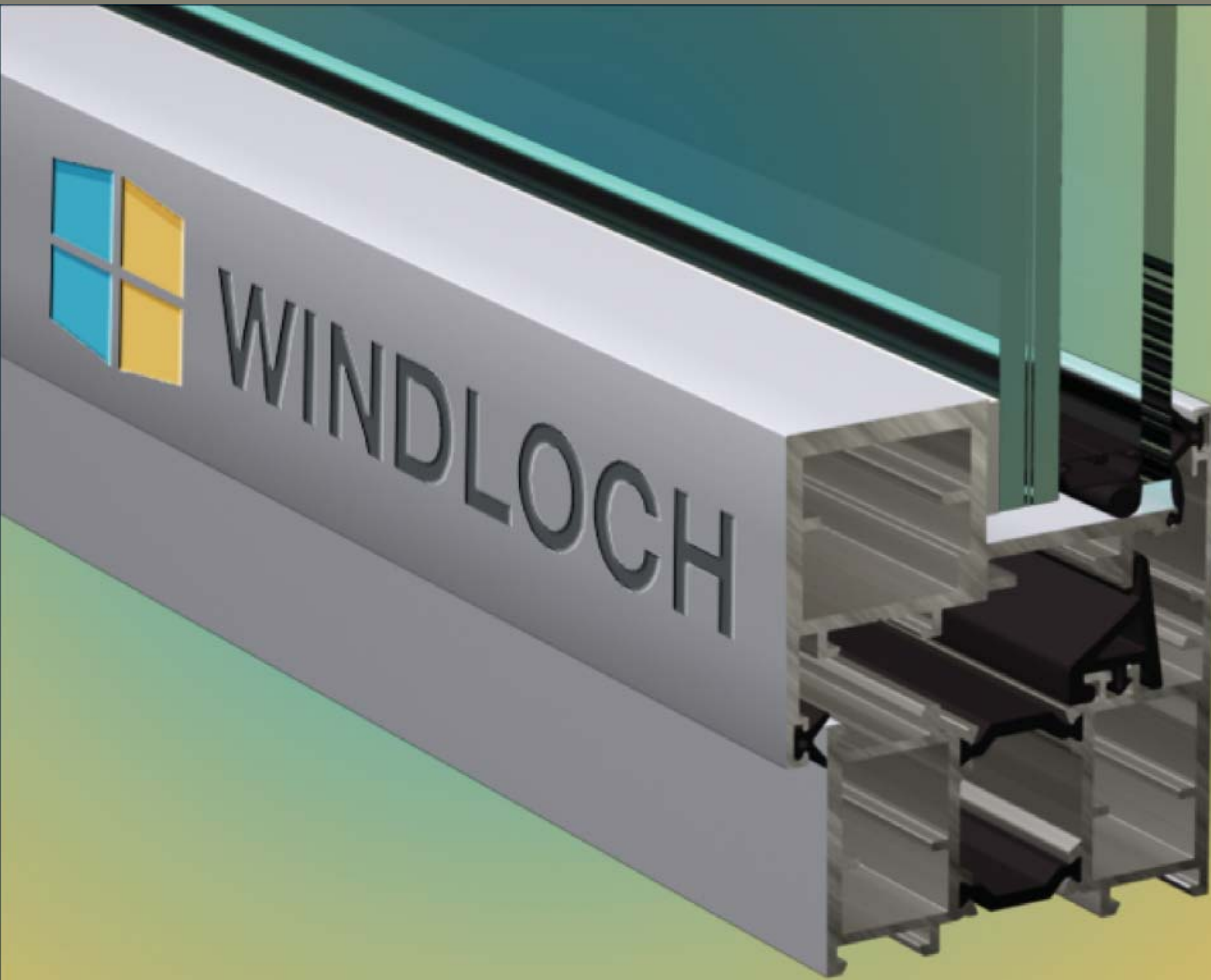


# WINDLOCH

## WS 75 catalog



Order Manual



**WS 75**

## **TABLE OF CONTENT**

75-01-02	Test Results
75-01-11	Details
75-10-11	Profiles
75-12-11	Gaskets
75-13-11	Hardware

# Test Results



**TEST REPORT**

**Report No.:** C5191.01-109-44

**Rendered to:**

WINDLOCH, LLC  
Arcadia, Florida

**PRODUCT TYPE:** Aluminum Casement/Dual Action over Fixed  
**SERIES/MODEL:** WS-75

**SPECIFICATION:** AAMA/WDMA/CSA 101/1.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

Title	Summary of Results	
	Test Specimen #1	Test Specimen #2
Primary Product Designator	Class AW-PG45 2134 x 2591 (84 x 102)-C	Class AW-PG70 2134 x 2591 (84 x 102)-C
Design Pressure	±2160 Pa (±45.11 psf)	±3360 Pa (±70.18 psf)
Air Infiltration	<0.1 L/s/m <sup>2</sup> (<0.01 cfm/ft <sup>2</sup> )	N/A
Water Penetration Resistance Test Pressure	720 Pa (15.04 psf)	N/A

**Test Completion Date:** 01/18/2013

Reference must be made to Report No. C5191.01-109-44, dated 01/29/13 for complete test specimen description and detailed test results.

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>2 - May/08/14</b>
<b>PAGE :</b>	<b>75-01-02</b>



**ASTM E 90 SOUND TRANSMISSION LOSS  
TEST REPORT**

**Rendered to:**

**WINDLOCH LLC**

**SERIES/MODEL: WS 75**

**TYPE: Tilt-Turn Window**

<b>Summary of Test Results</b>			
<b>Data File No.</b>	<b>Glazing Option (Nominal Dimensions)</b>	<b>STC</b>	<b>OITC</b>
C4711.01A	1-1/16" IG (5/16" heat strengthened exterior, 1/2" air space, 1/4" heat strengthened interior)	38	33
C4711.01C	1-1/2" IG (1/2" laminated exterior, 3/4" air space, 1/4" heat strengthened interior), Glass temperature 75°F	41	35
C4711.01D	1-1/8" IG (1/4" heat strengthened, 5/8" air space, 1/4" heat strengthened)	35	28

Reference should be made to Architectural Testing, Inc. Report No. C4711.01-113-11 for complete test specimen description. The complete test results are listed in Appendix B.

130 Derry Court  
York, PA 17406-8405  
phone: 717-764-7700  
fax: 717-764-4129  
www.archtest.com



<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>2 - May/08/14</b>
<b>PAGE :</b>	<b>75-01-03</b>



**THERMAL PERFORMANCE  
COMPUTER SIMULATION REPORT**

**Rendered to:**

**WINDLOCH**

**WS-75**

**TYPE: Casment and Tilt-Turn Assembly**

**Report No.:** C4735.01-116-45  
**Report Date:** 12/10/12

130 Derry Court  
York, PA 17406-8405  
phone: 717-764-7700  
fax: 717-764-4129  
www.archtest.com

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>2 - May/08/14</b>
<b>PAGE :</b>	<b>75-01-04</b>


**Results:**

U-Factor Calculation: The U-Factor of the system was determined in general accordance with NFRC 100-2010: *Procedures for Determining Fenestration Product U-Factors*. See Appendix A for complete calculation data and Appendix C for the cross-sectional details used in the analysis.

	U-Factor	SHGC	VT
<i>Casement</i>	0.38	0.31	0.56
<i>Tilt-Turn</i>	0.38	0.31	0.56
<b>Total Combined Product</b>	0.38	0.31	0.56

Note: Project sizing was used for the calculations; Not NFRC standard sizing

CRF Calculation: The condensation resistance factor (CRF) of the glazed wall system was determined by analyzing the individual components contained in the system. Appendix B contains complete calculation data used to determine the estimated CRF. The temperature information used was derived from the computer simulation models.

	Casement	Tilt-Turn	Overall Opening
	CRF	CRF	CRF
Frame	60	60	-
Glass	71	71	-
<b>Total Product*</b>	<b>60</b>	<b>60</b>	<b>60</b>

\*Note: The CRF rating is based on the worst performing component, frame or glass.

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>2 - May/08/14</b>
<b>PAGE :</b>	<b>75-01-05</b>



**TEST REPORT**

**Report No.:** C4326.01-109-44

**Rendered to:**

WINDLOCH, LLC  
Arcadia, Florida

**PRODUCT TYPE:** Aluminum Casement/Dual Action over Fixed  
**SERIES/MODEL:** WS-75

**SPECIFICATION:** City of New York Department of Health Falls Prevention Program,  
Chapter 12-11, *Specifications for Window Guards Other Than Double Hung Windows.*

**This report contains in its entirety:**

**Cover Page:** 1 page  
**Report Body:** 7 pages  
**Photographs:** 1 page  
**Drawings:** 5 pages



*Joseph A. Reed*  
Digitally Signed by: Joseph A. Reed

2013.02.14 16:08:06 -05'00'

**Test Date:** 01/18/13  
**Report Date:** 02/13/13  
**Test Record Retention Date:** 02/13/17

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>2 - May/08/14</b>
<b>PAGE :</b>	<b>75-01-06</b>





**7.0 Test Results:** The results are tabulated as follows:

**Casement:**

Test	Results	Maximum Allowed
Vent opening prior to loading	4-1/4"	4-1/2" max.
150 lbs applied for 60 seconds at the middle of the pull stile	Pass 4-1/2" max. opening	No passage of a solid 5" sphere
Vent opening after loading	4-1/4"	4-1/2" max.

Test	Results	Maximum Allowed
Vent opening prior to loading	4-1/4"	4-1/2" max.
150 lbs applied for 60 seconds at the bottom corner of the pull stile	Pass 4-1/2" max. opening	No passage of a solid 5" sphere
Vent opening after loading	4-1/4"	4-1/2" max.

**Dual Action:**

Test	Results	Maximum Allowed
Vent opening prior to loading	4"	4-1/2" max.
150 lbs applied for 60 seconds at the middle of the top rail	Pass 4-1/8" max. opening	No passage of a solid 5" sphere
Vent opening after loading	4"	4-1/2" max.

Test	Results	Maximum Allowed
Vent opening prior to loading	4"	4-1/2" max.
150 lbs applied for 60 seconds at the right corner of top rail	Pass 4-1/8" max. opening	No passage of a solid 5" sphere
Vent opening after loading	4"	4-1/2" max.

**Observations:** At no time during the test was a 5" solid sphere able to pass through the opening.

Upon completion of testing there was no damage or permanent deformation to the window or limit stops.

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>2 - May/08/14</b>
<b>PAGE :</b>	<b>75-01-07</b>



# Window, Door and Curtain Wall Testing

## TEST REPORT

# Render to: Windloch Windows

TITLE	SUMMARY OF RESULTS
Product manufacturer:	Winloch
Product type:	Casement mulled vertically with fixed
Product series/ model:	Windloch WS-75
Over all size	1219mm x 3048 mm (48"x120")
Air infiltration @6.24 PSF :	<0.05L/sm <sup>2</sup> (<0.01 cfm/ft <sup>2</sup> )
Water penetration resistance (Astm 331):	960 Pa (20 Psf)
Test completion date:	03/09/15
<b>Report # 15-0009-A</b>	

MT Group	MT Group	MT Group	MT Group	MT Group	MT Group
145 Sherwood Av Farmingdale, NY 11735 (631) 815-1920 Office (631) 815-1901 Fax		403 County Rd, Suite 1 Cliffwood, NJ 07721 (732) 725-6177 Office (732) 725-6180 Fax			Page 1 of 9 Report # 15-009-A

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>3 - May/08/15</b>
<b>PAGE :</b>	<b>75-01-08</b>



# Window, Door and Curtain Wall Testing

## Results

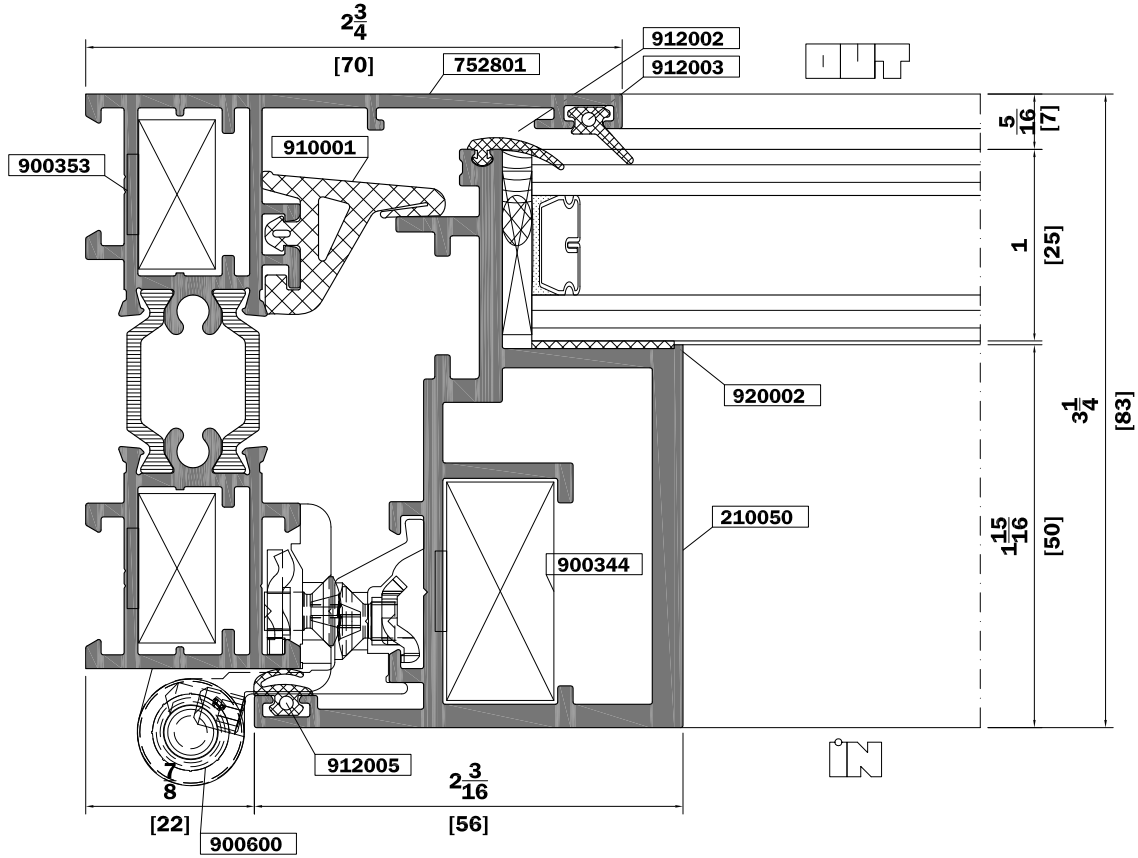
Paragraph	Test	Result	Allowable
(5.3.2)	Air Infiltration ASTM E283 @300 Pa (6.24psf)	Pass <0.05 L/sm <sup>2</sup> <0.01 cfm/ft <sup>2</sup>	Reported
(5.3.2)	Air Infiltration ASTM E283 @75 Pa (1.57psf)	Pass <0.05 L/sm <sup>2</sup> <0.01 cfm/ft <sup>2</sup>	Reported
(5.3.3)	Static Water Penetration ASTM E331 @ 575 Pa (12Psf)	Pass	No Water
(5.3.3)	Static Water Penetration ASTM E331 @ 718 Pa (15Psf)	Pass	No Water
(5.3.3)	Static Water Penetration ASTM E331 @ 958 Pa (20Psf)	Pass	No Water
(5.3.4.2)	Uniform Load max Deflection ASTM E330 @ + 4310 Pa Positive (90 PSF) Horizontal combination mullion	Pass 1.27 mm (0.05")	Reported
(5.3.4.2)	Uniform Load Max Deflection ASTM E330 - Pa Negative (-90 PSF) Horizontal combination mullion	Pass -1.27 mm (-0.05")	Reported
(5.3.4.2)	Uniform Over load Max Deflection ASTM E330 @ + 6464 Pa (Positive 135 PSF) Horizontal combination mullion	Pass 0.25 mm (0.01")	Reported
(5.3.4.2)	Uniform Over load Max Deflection ASTM E330 @ - 6464 Pa ( Negative 135 PSF) Horizontal combination mullion	Pass -0.25 mm (-0.01")	Reported

<b>MT</b> <sub>Group</sub>	<b>MT</b> <sub>Group</sub>	<b>MT</b> <sub>Group</sub>	<b>MT</b> <sub>Group</sub>	<b>MT</b> <sub>Group</sub>	<b>MT</b> <sub>Group</sub>
145 Sherwood Av Farmingdale, NY 11735 (631) 815-1920 Office (631) 815-1901 Fax		403 County Rd, Suite 1 Cliffwood, NJ 07721 (732) 725-6177 Office (732) 725-6180 Fax		Page 5 of 9 Report # 15-009-A	

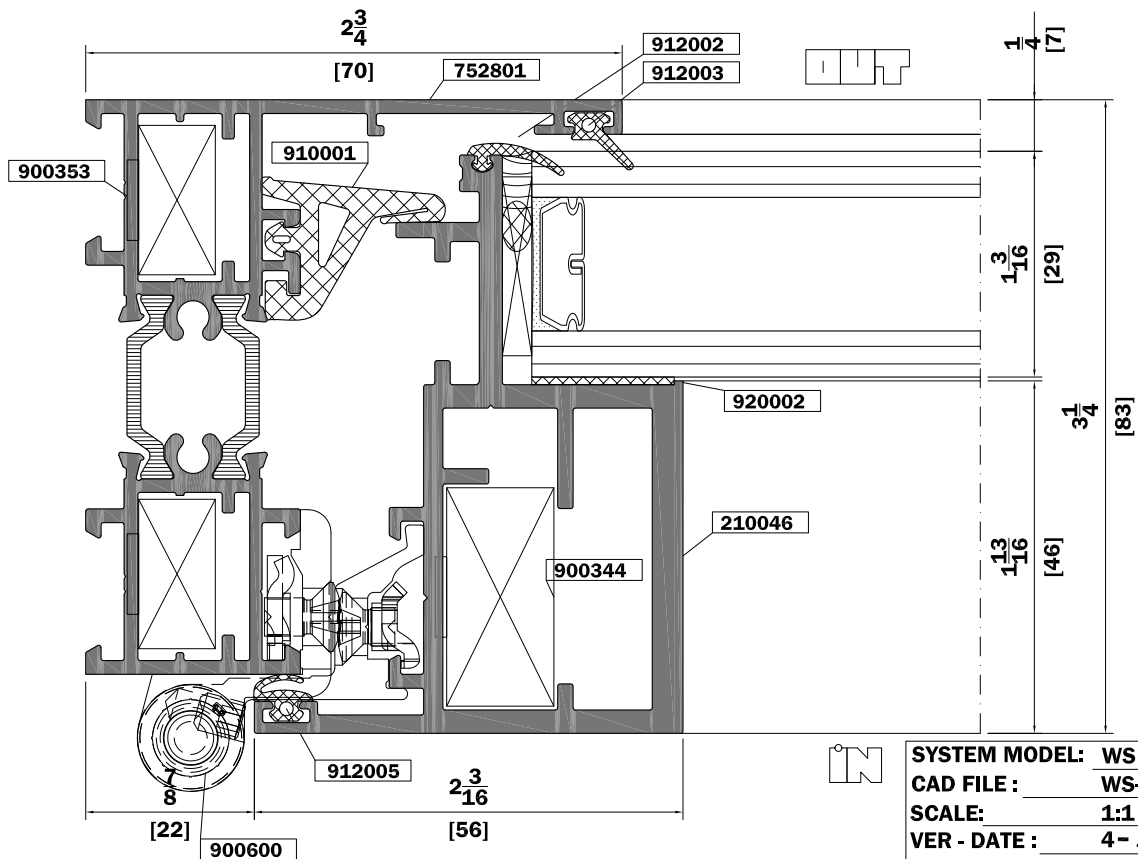
<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE :</b>	<b>1:1</b>
<b>VER - DATE:</b>	<b>3 - May/08/15</b>
<b>PAGE :</b>	<b>75-01-09</b>

# Details

Narrow Style Outer frame with 50mm face-fitted vent  
Hinge side

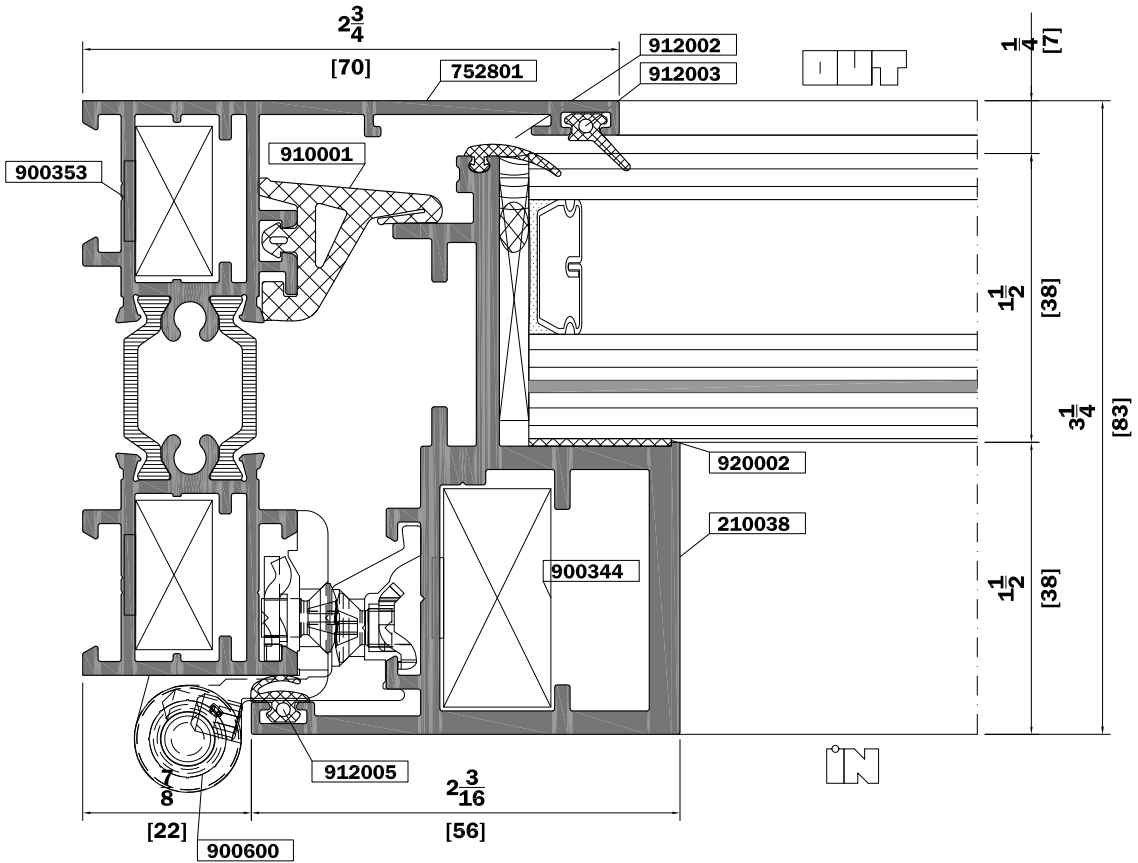


Narrow Style Outer frame with 46mm face-fitted vent  
Hinge side

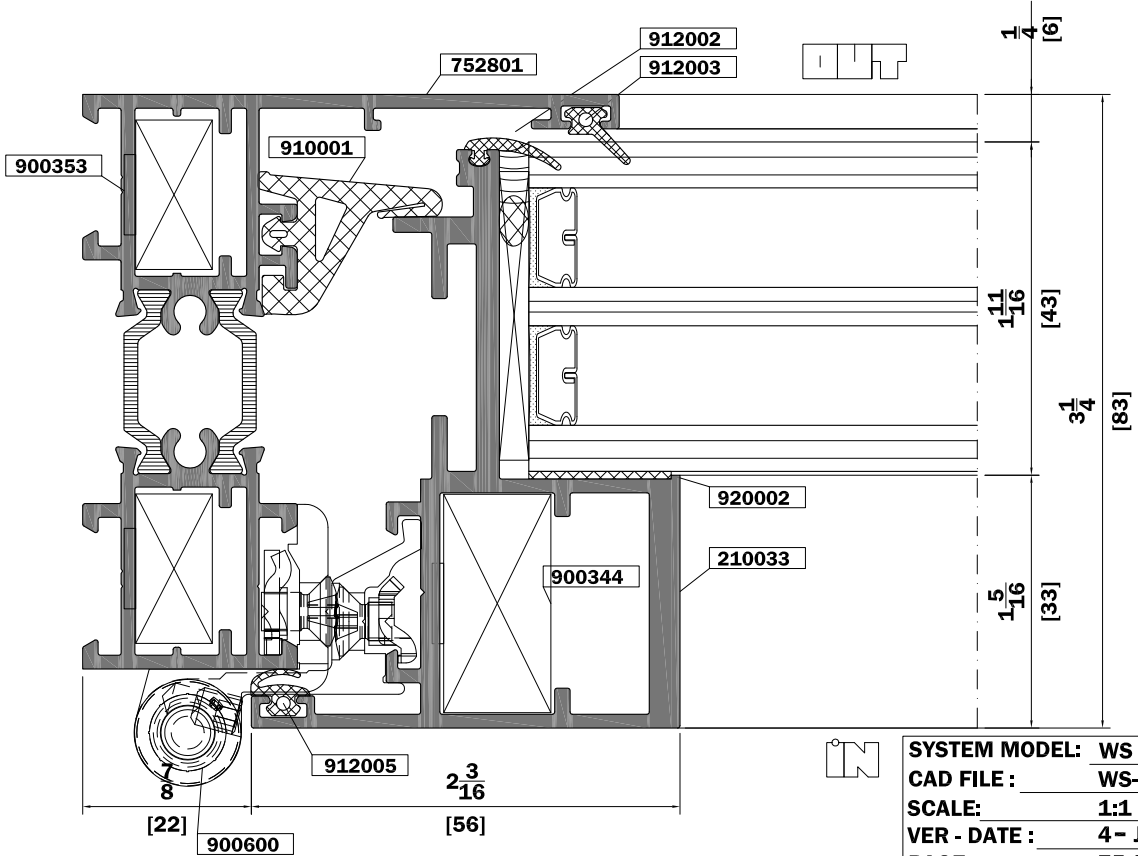


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/29/14
PAGE:	75-01-11

Narrow Style Outer frame with 38mm face-fitted vent  
Hinge side

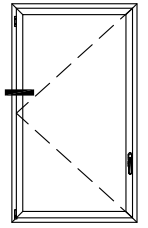
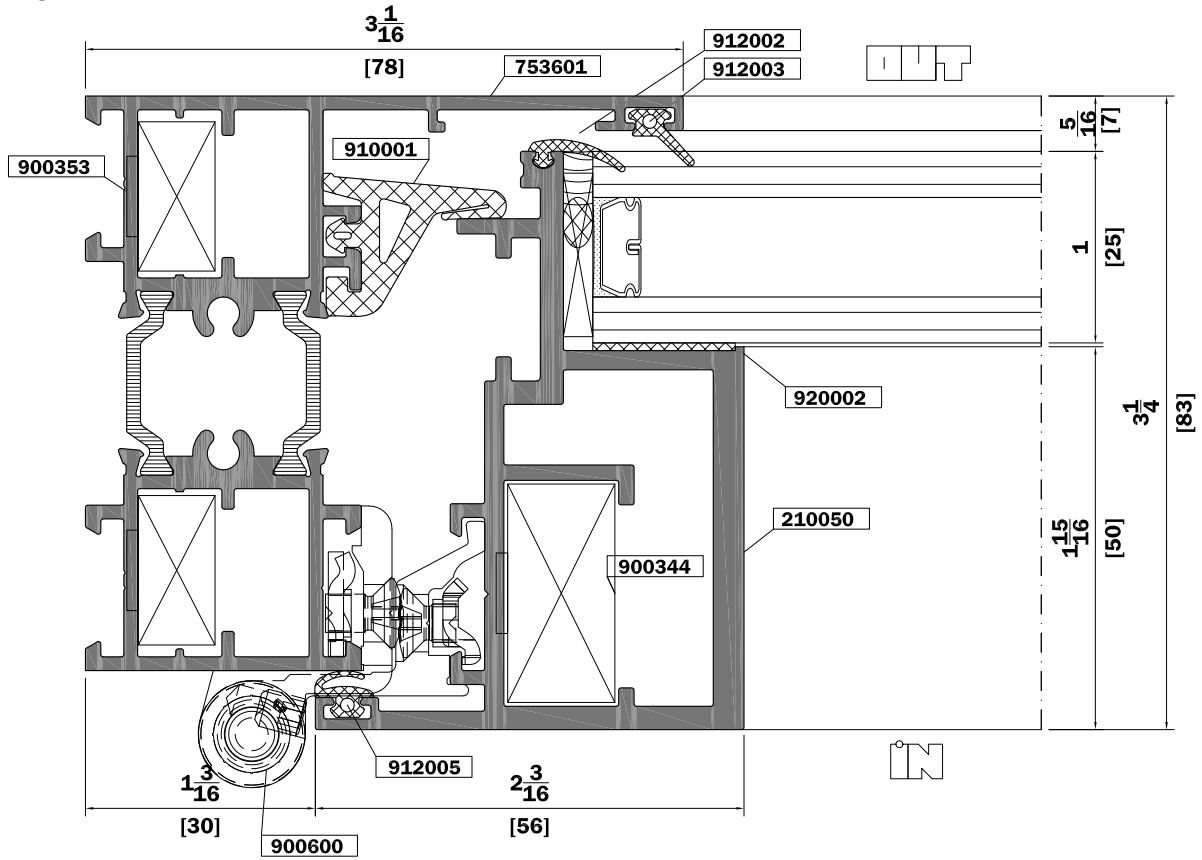


Narrow Style Outer frame with 33mm face-fitted vent  
Hinge side. Triple Glazed.

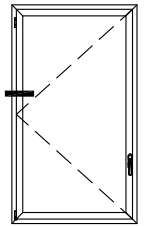
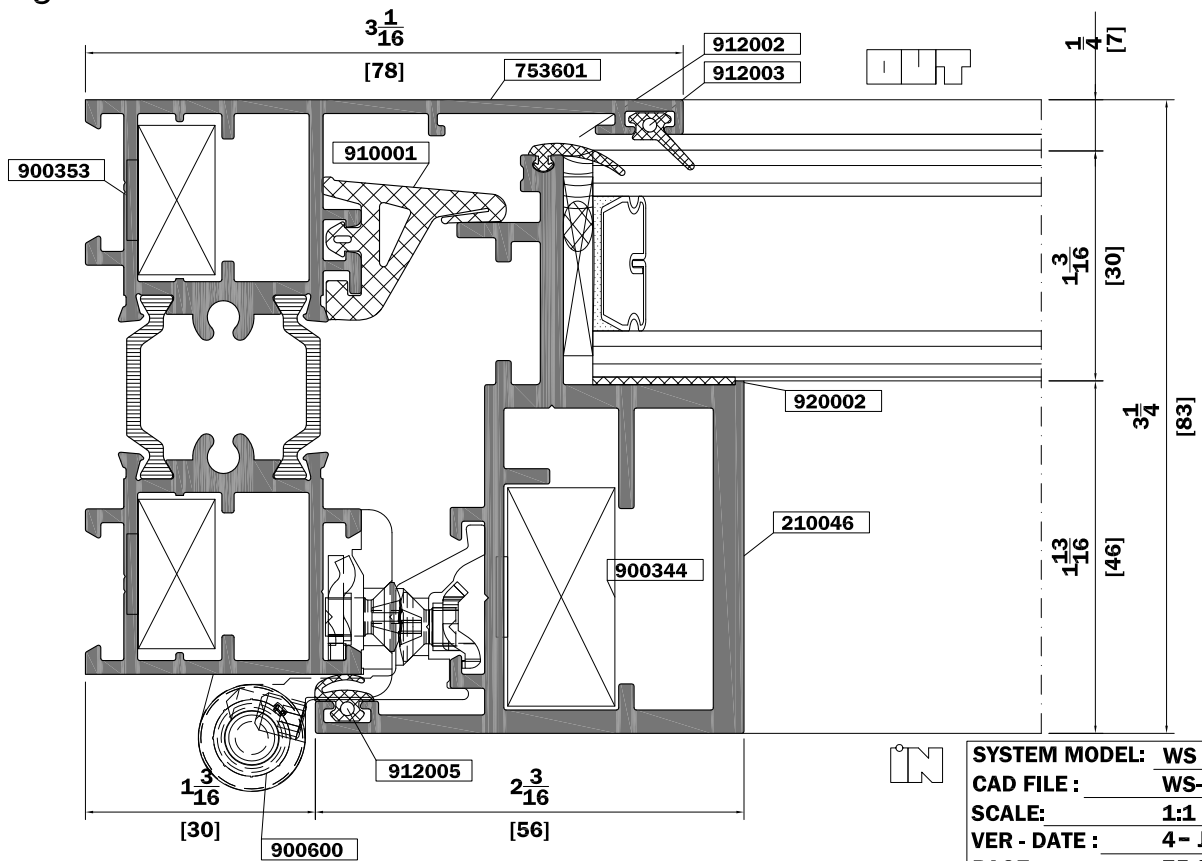


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/24/14
PAGE:	75-01-12

### Mid Style Outer frame with 50mm face-fitted vent Hinge side

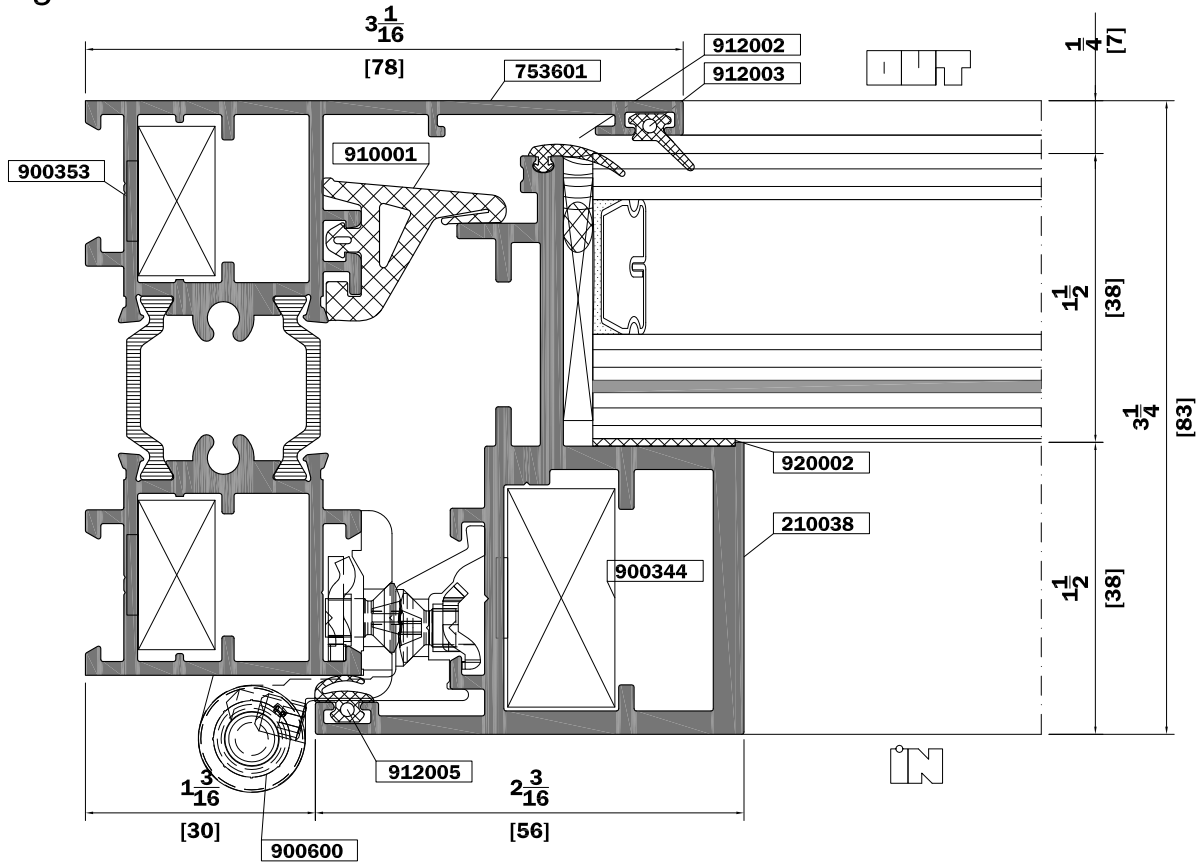


### Mid Style Outer frame with 46mm face-fitted vent Hinge side

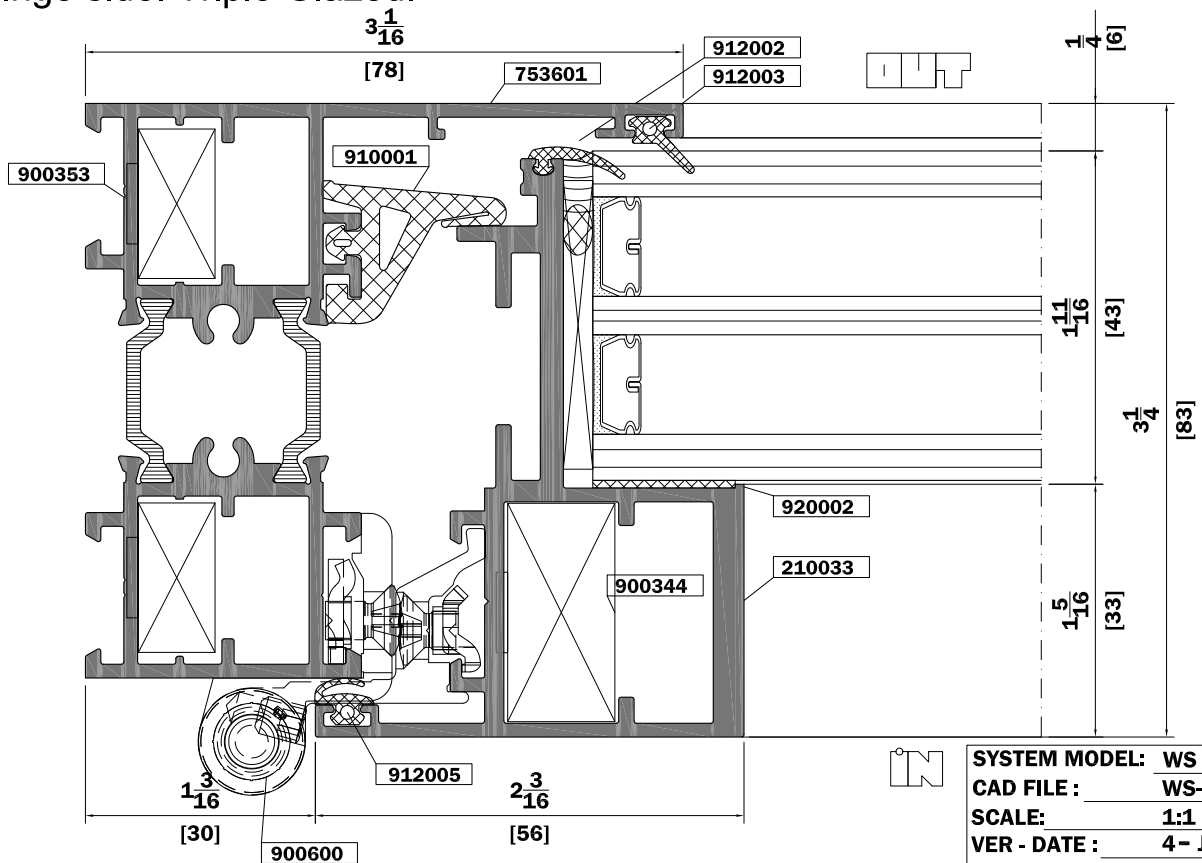


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/29/14
PAGE:	75-01-13

### Mid Style Outer frame with 38mm face-fitted vent Hinge side



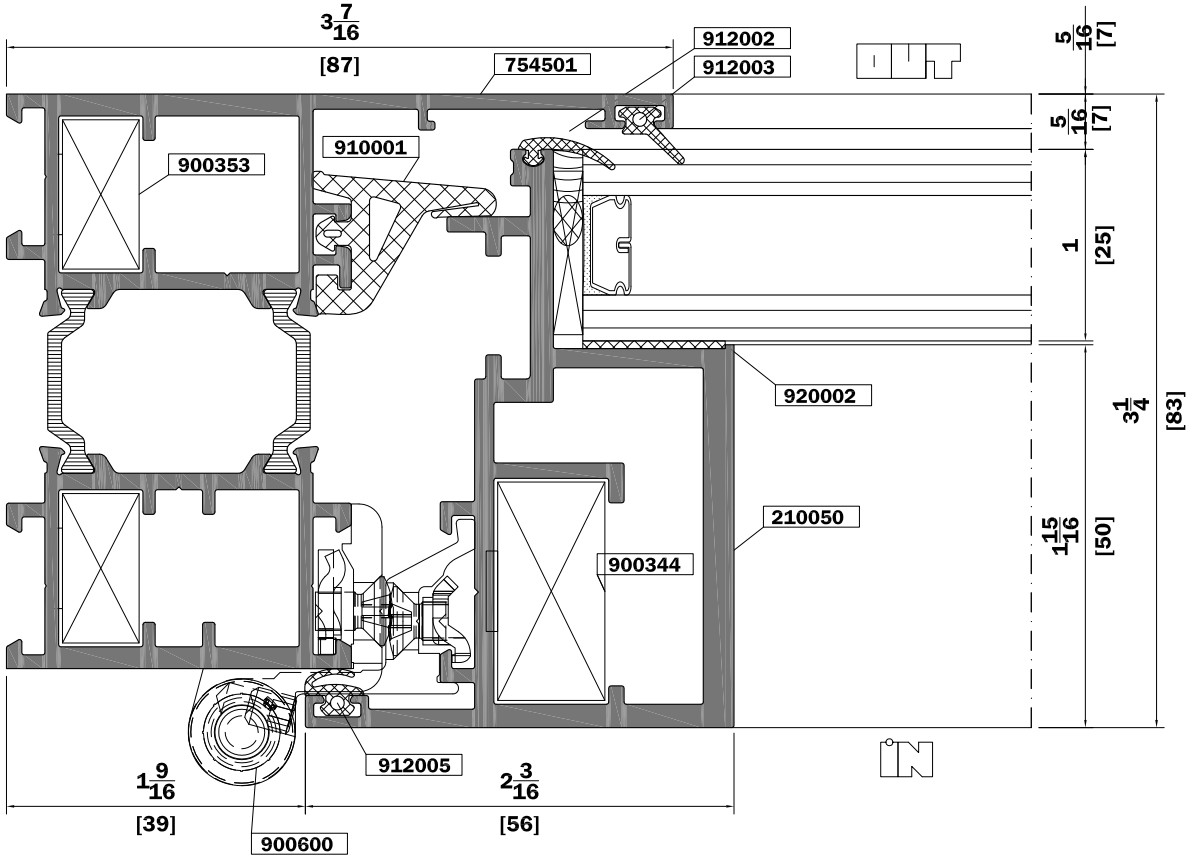
### Mid Style Outer frame with 33mm face-fitted vent Hinge side. Triple Glazed.



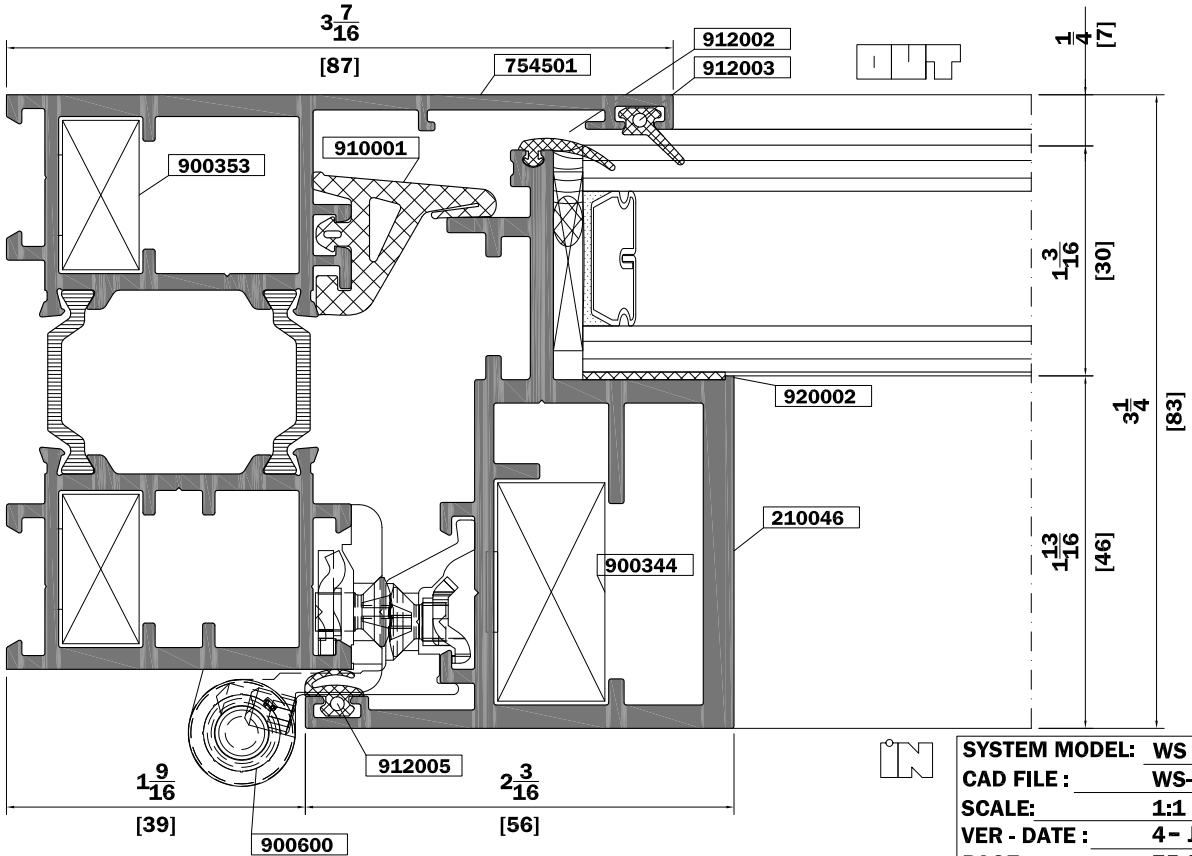
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/24/14
PAGE:	75-01-14



Wide Style Outer frame with 50mm face-fitted vent  
Hinge side

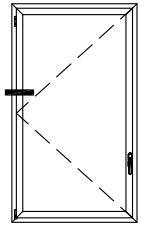
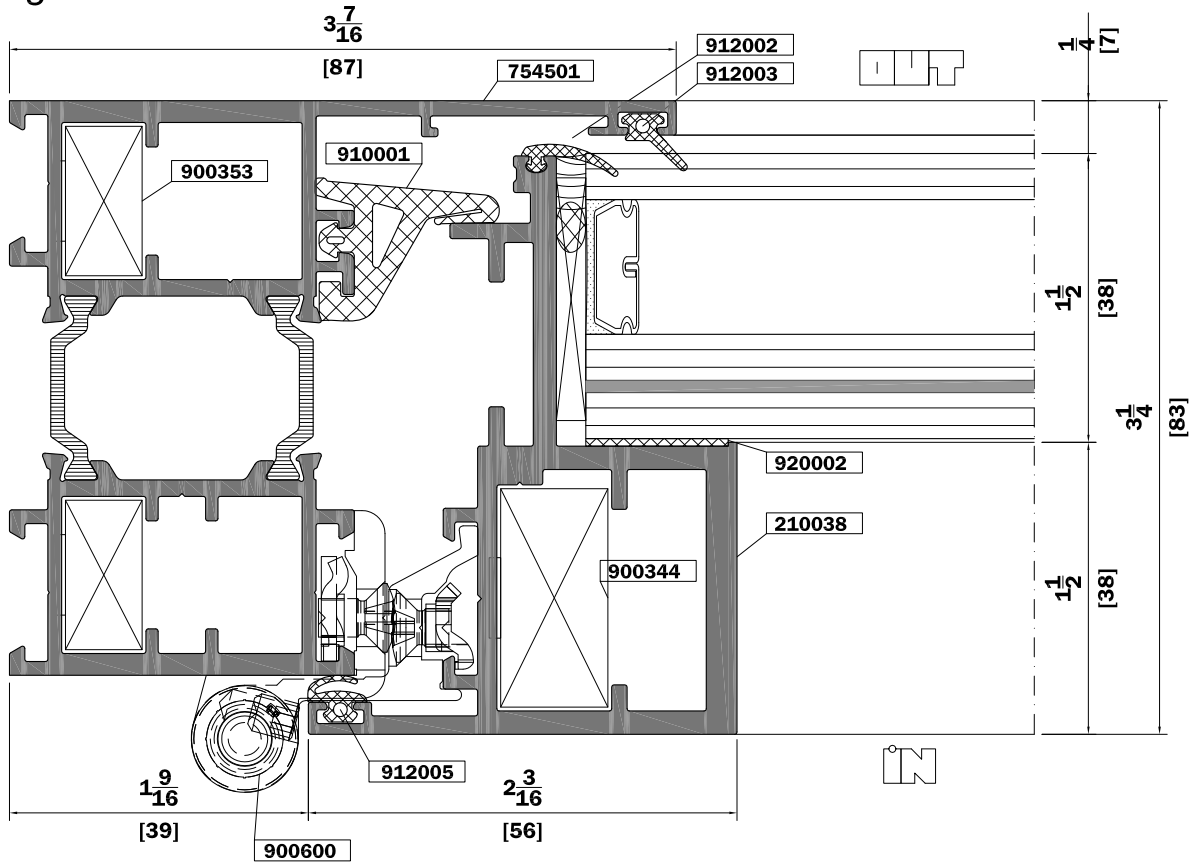


Wide Style Outer frame with 46mm face-fitted vent  
Hinge side

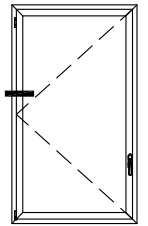
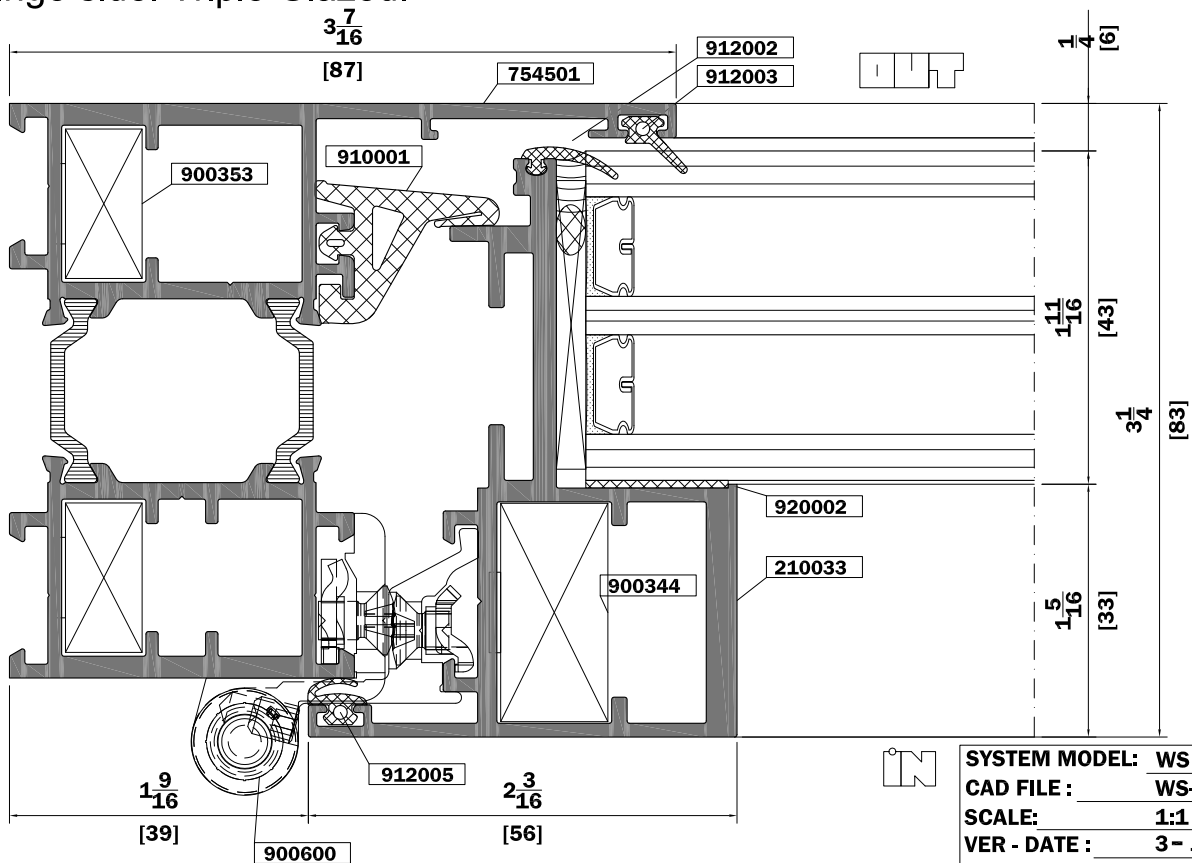


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/29/14
PAGE:	75-01-15

Wide Style Outer frame with 38mm face-fitted vent  
Hinge side

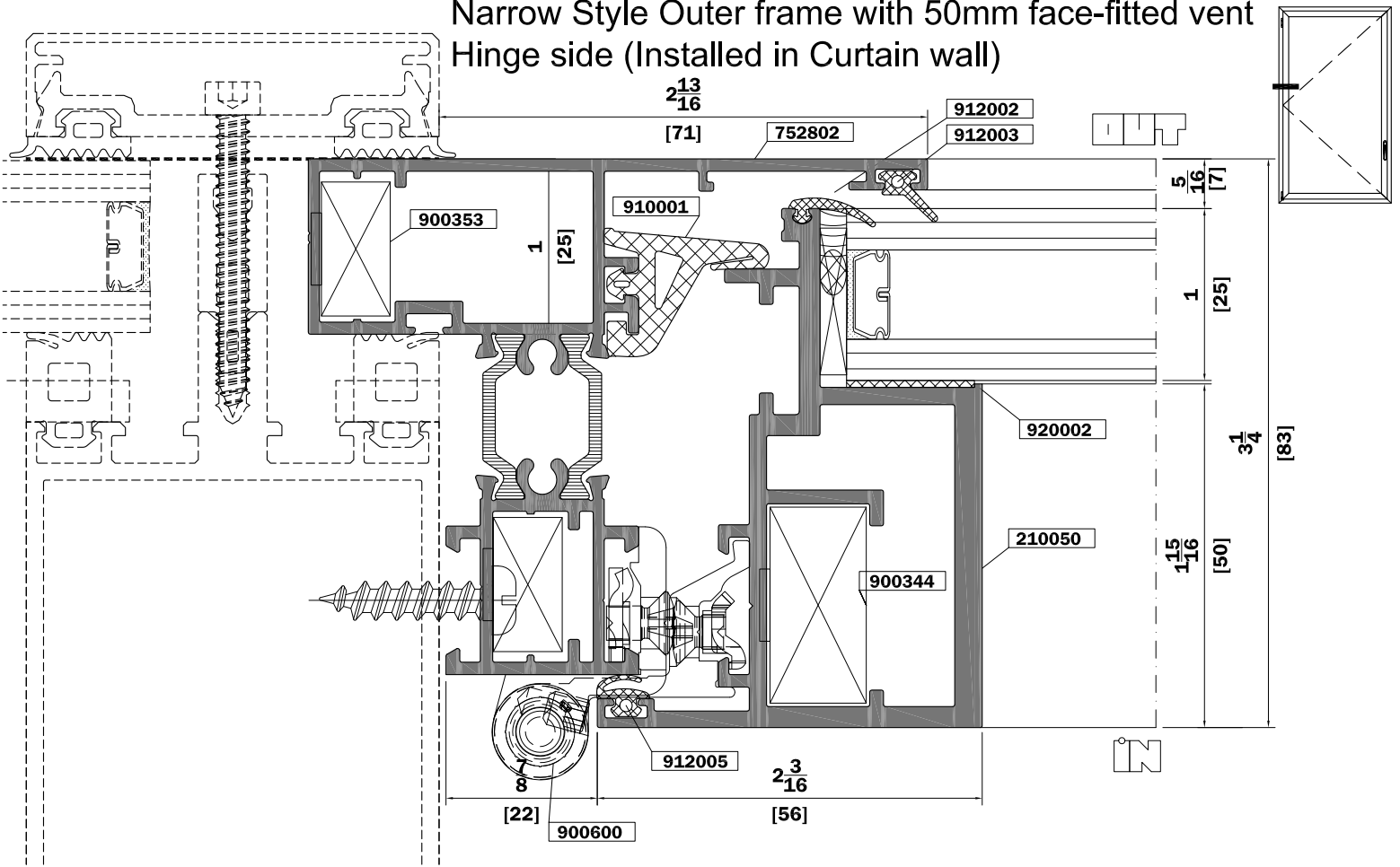


Wide Style Outer frame with 33mm face-fitted vent  
Hinge side. Triple Glazed.

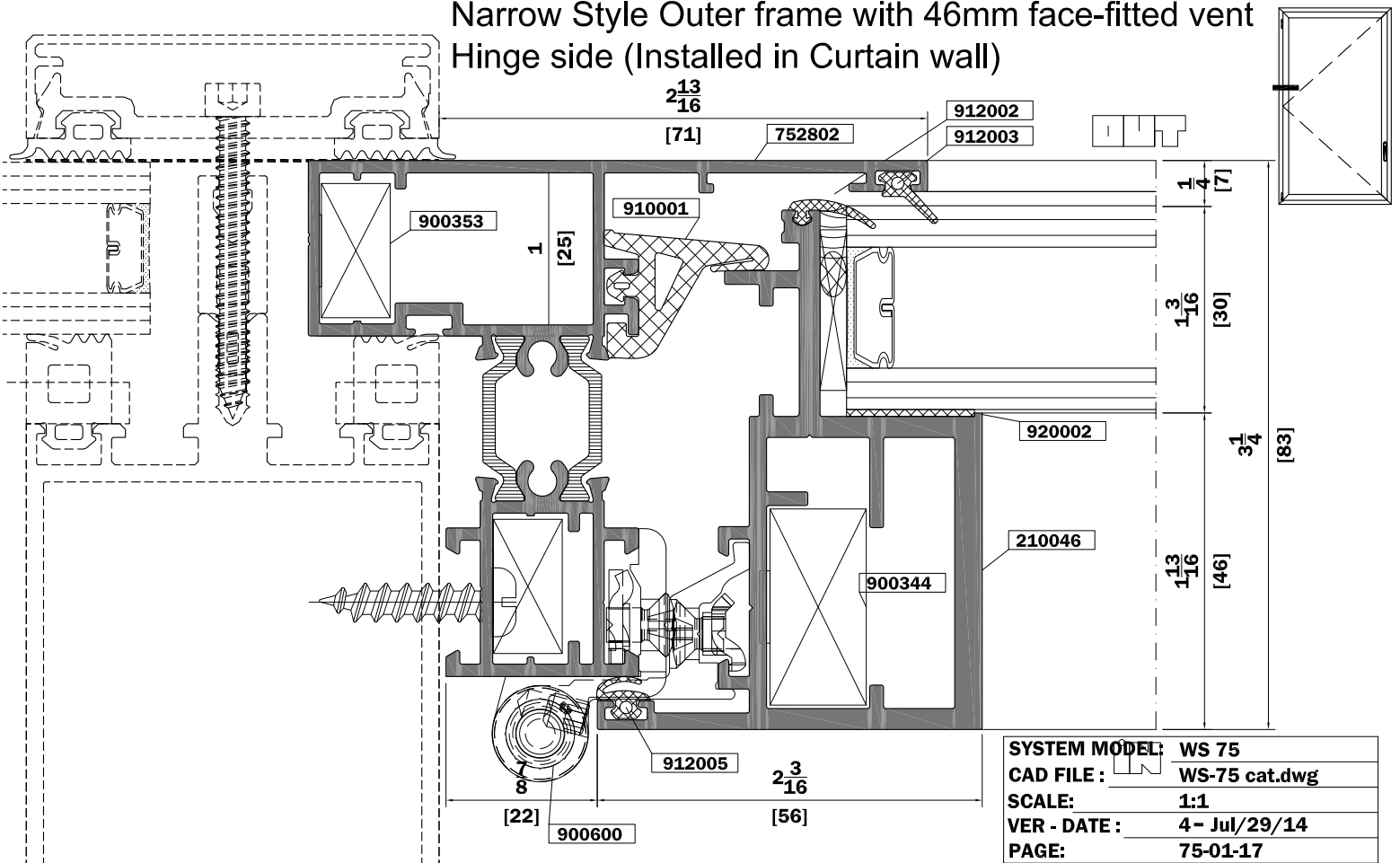


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/24/14
PAGE:	75-01-16

Narrow Style Outer frame with 50mm face-fitted vent  
Hinge side (Installed in Curtain wall)

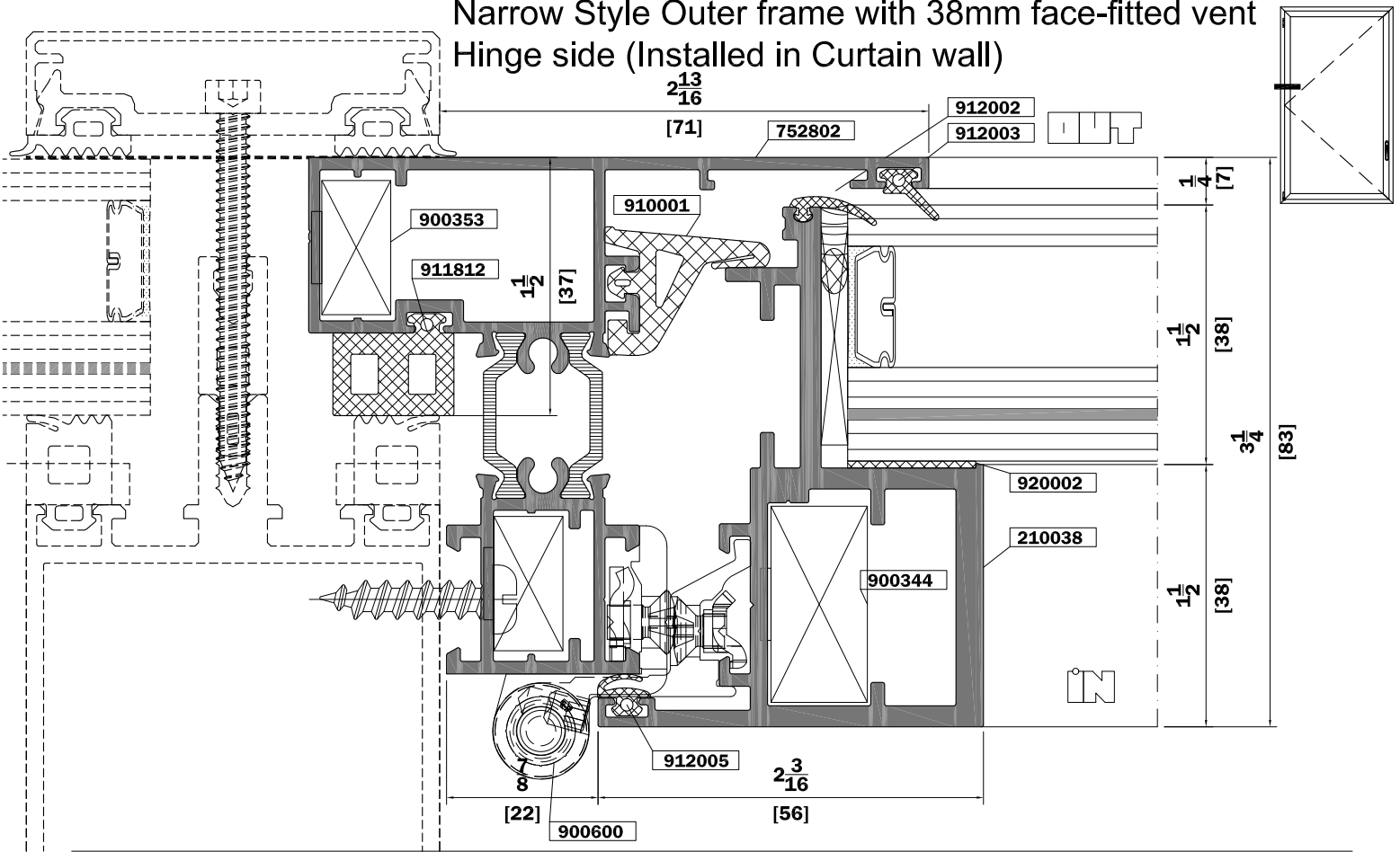


Narrow Style Outer frame with 46mm face-fitted vent  
Hinge side (Installed in Curtain wall)

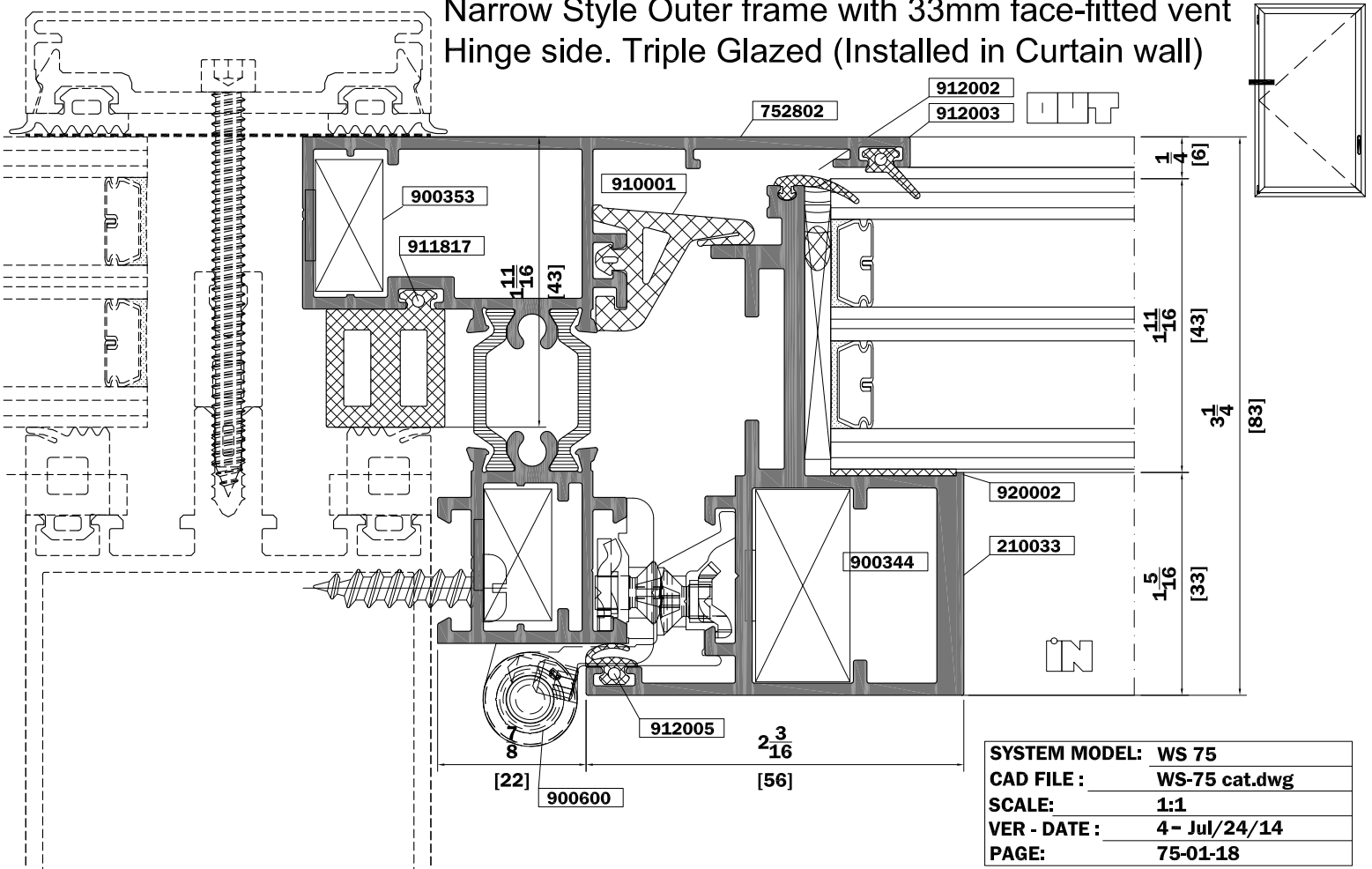


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4 - Jul/29/14
PAGE:	75-01-17

Narrow Style Outer frame with 38mm face-fitted vent  
Hinge side (Installed in Curtain wall)

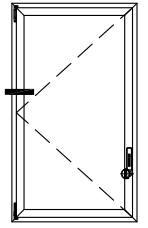
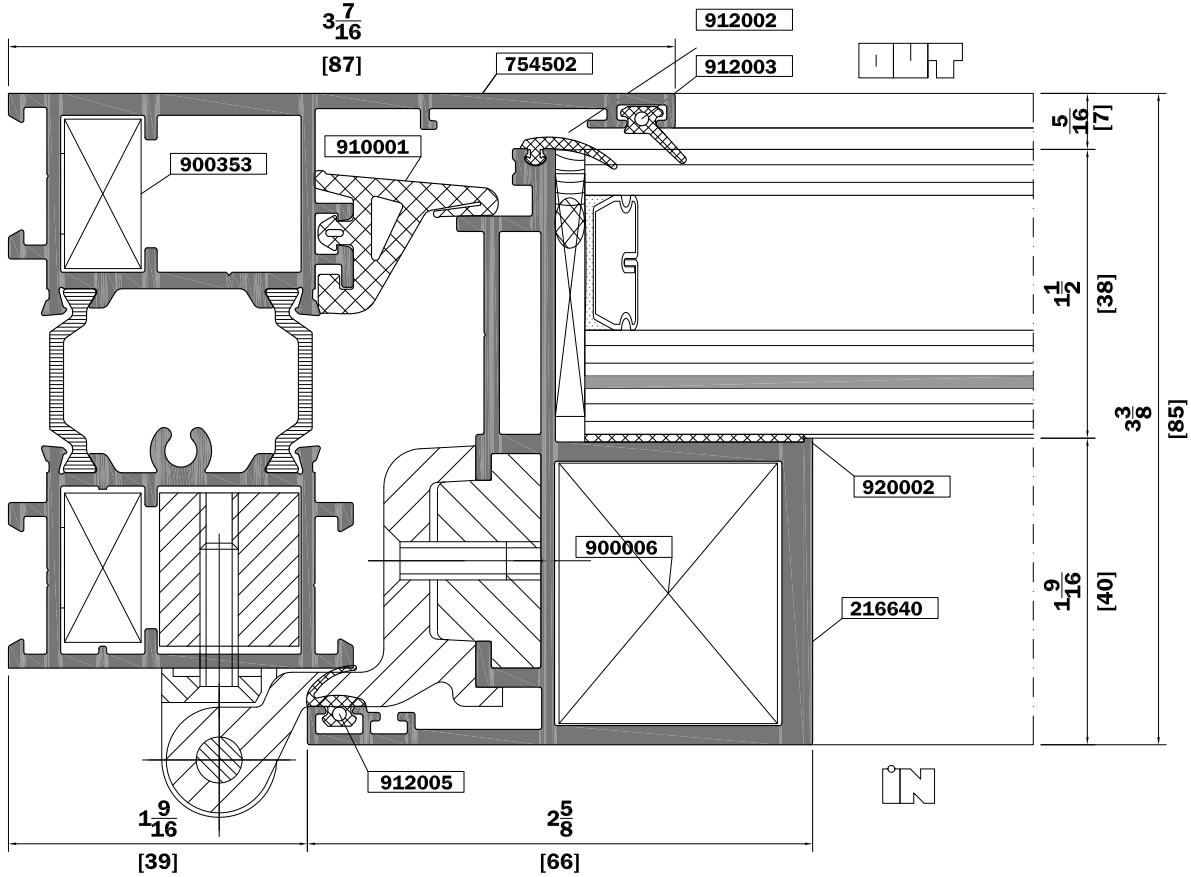


Narrow Style Outer frame with 33mm face-fitted vent  
Hinge side. Triple Glazed (Installed in Curtain wall)

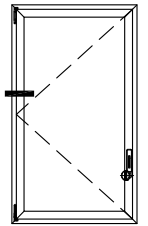
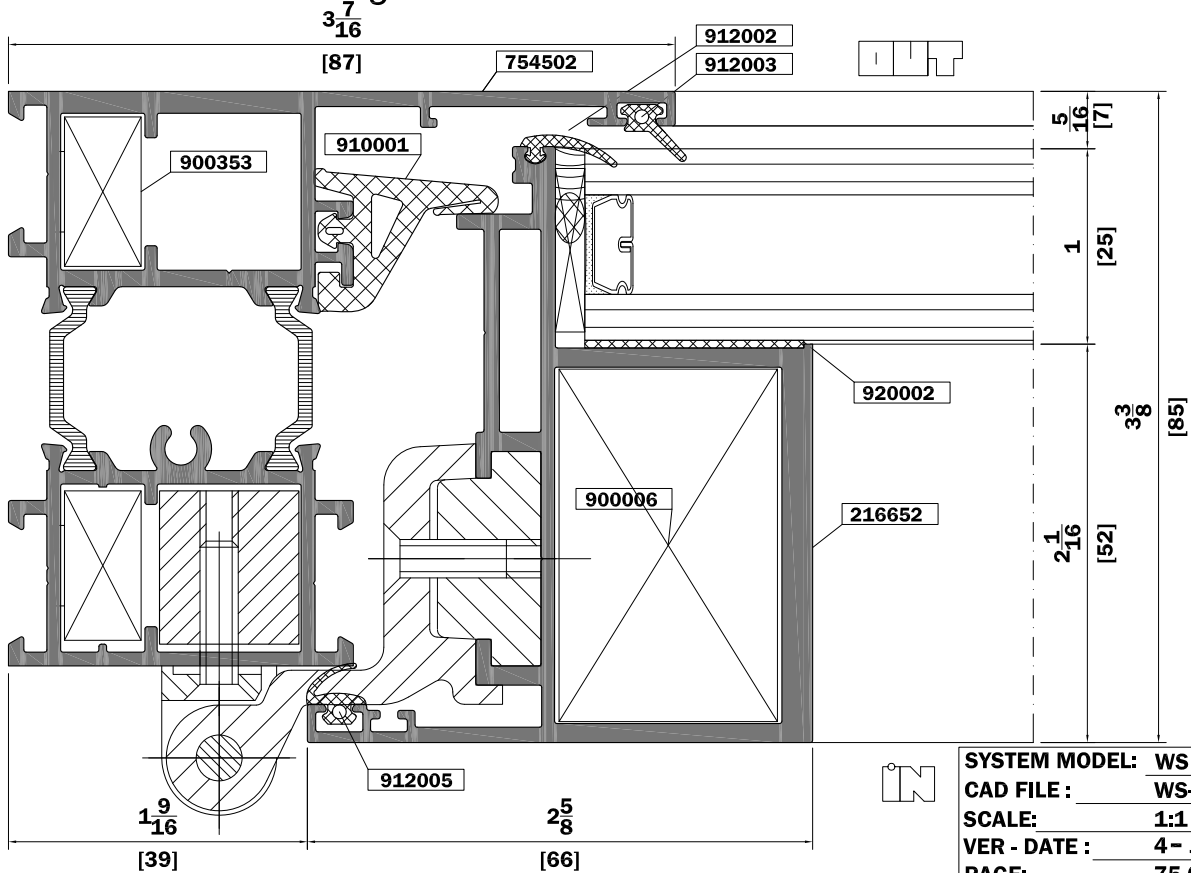


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4 - Jul/24/14
PAGE:	75-01-18

Wide Style Outer frame with 40mm face-fitted vent  
Window with Crank-Hinge side

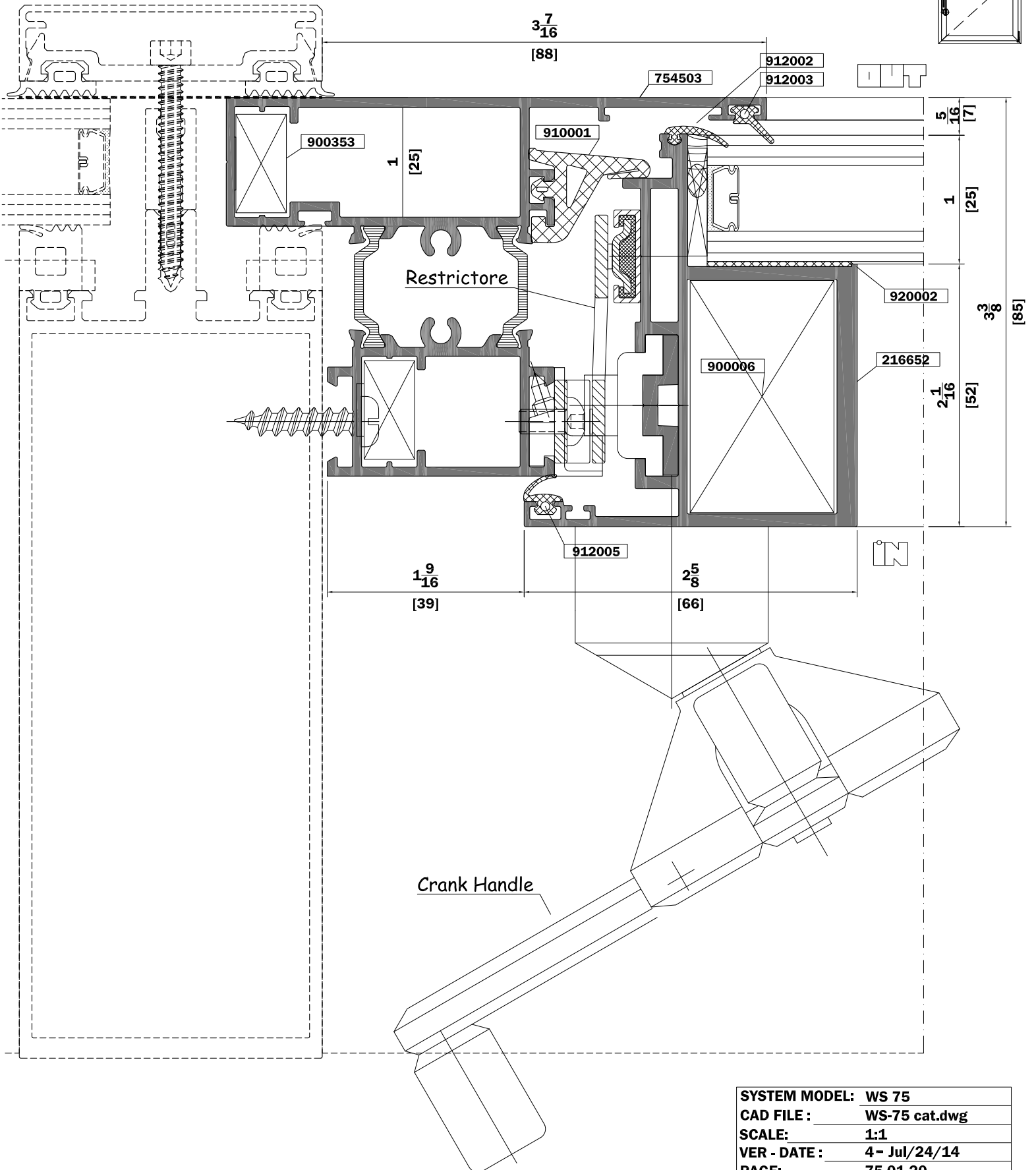
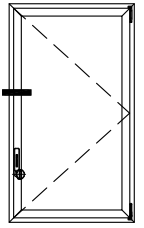


Wide Style Outer frame with 52mm face-fitted vent  
Window with Crank-Hinge side



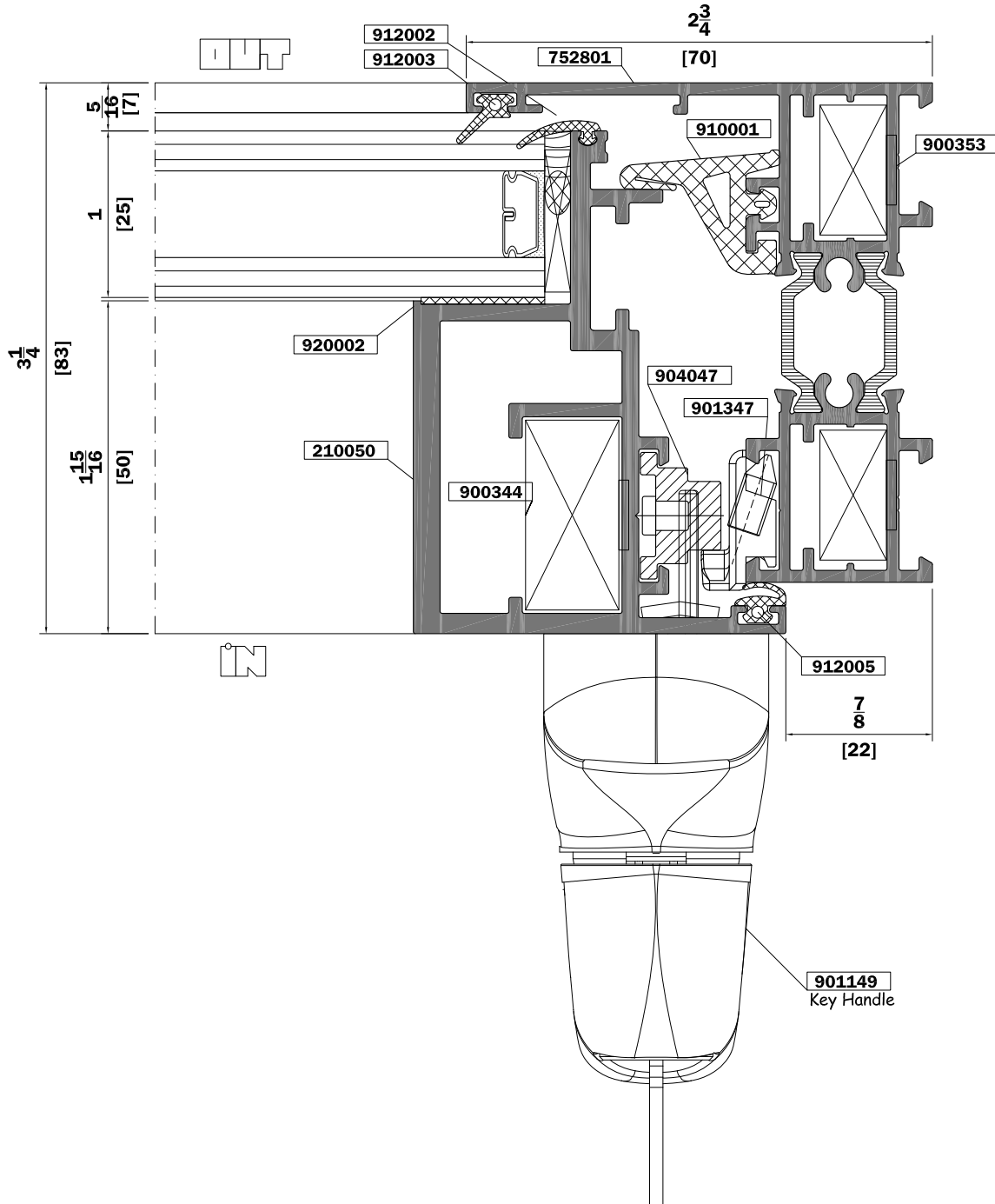
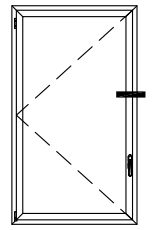
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/24/14
PAGE:	75-01-19

Wide Style Outer frame with 50mm face-fitted vent  
 With Crank Handle (Installed in Curtain wall)



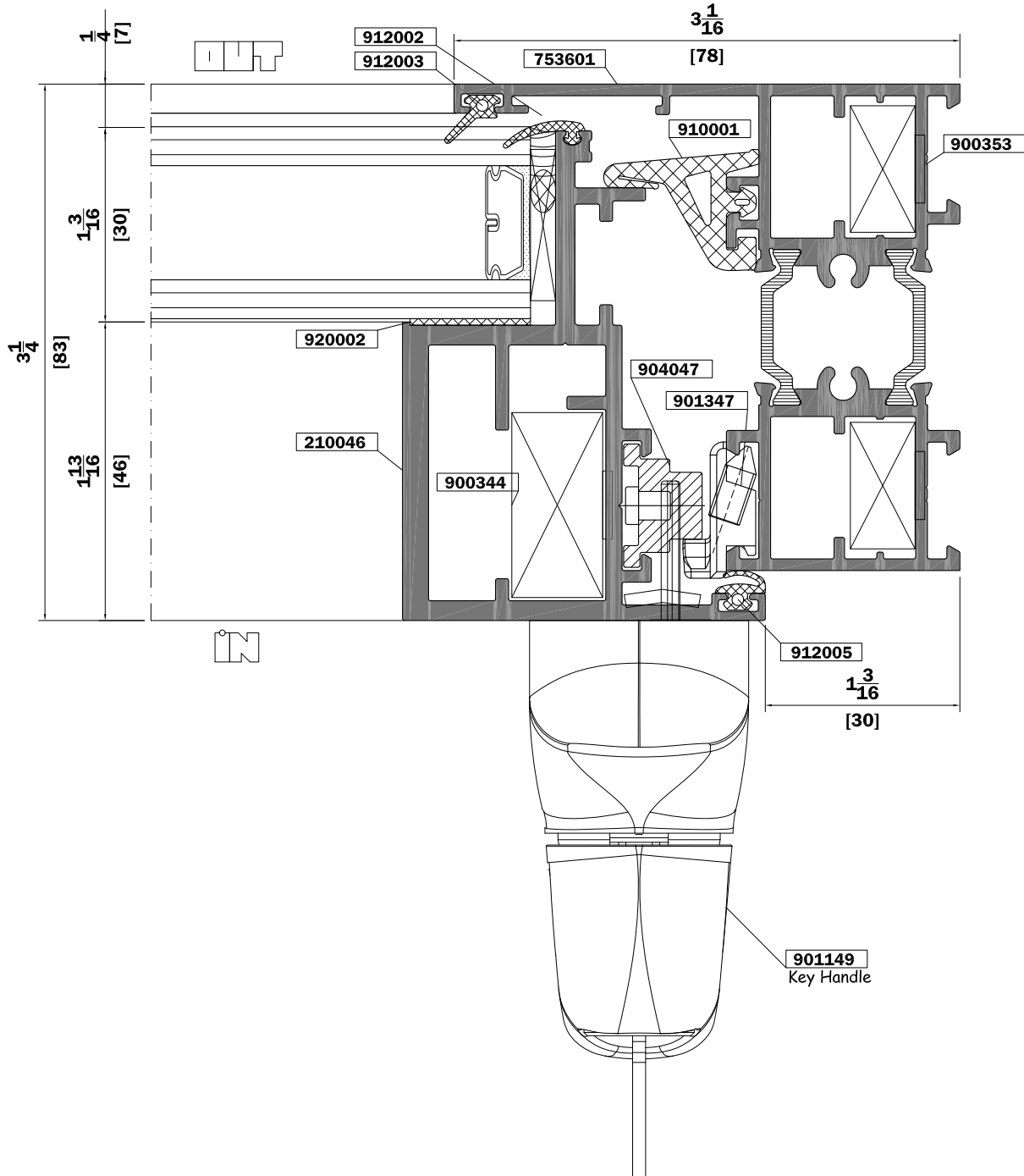
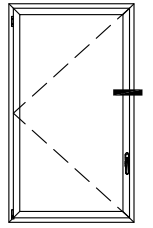
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4 - Jul/24/14
PAGE:	75-01-20

Narrow style Outer frame with 50mm face-fitted vent  
Handle side



SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/29/14
PAGE:	75-02-11

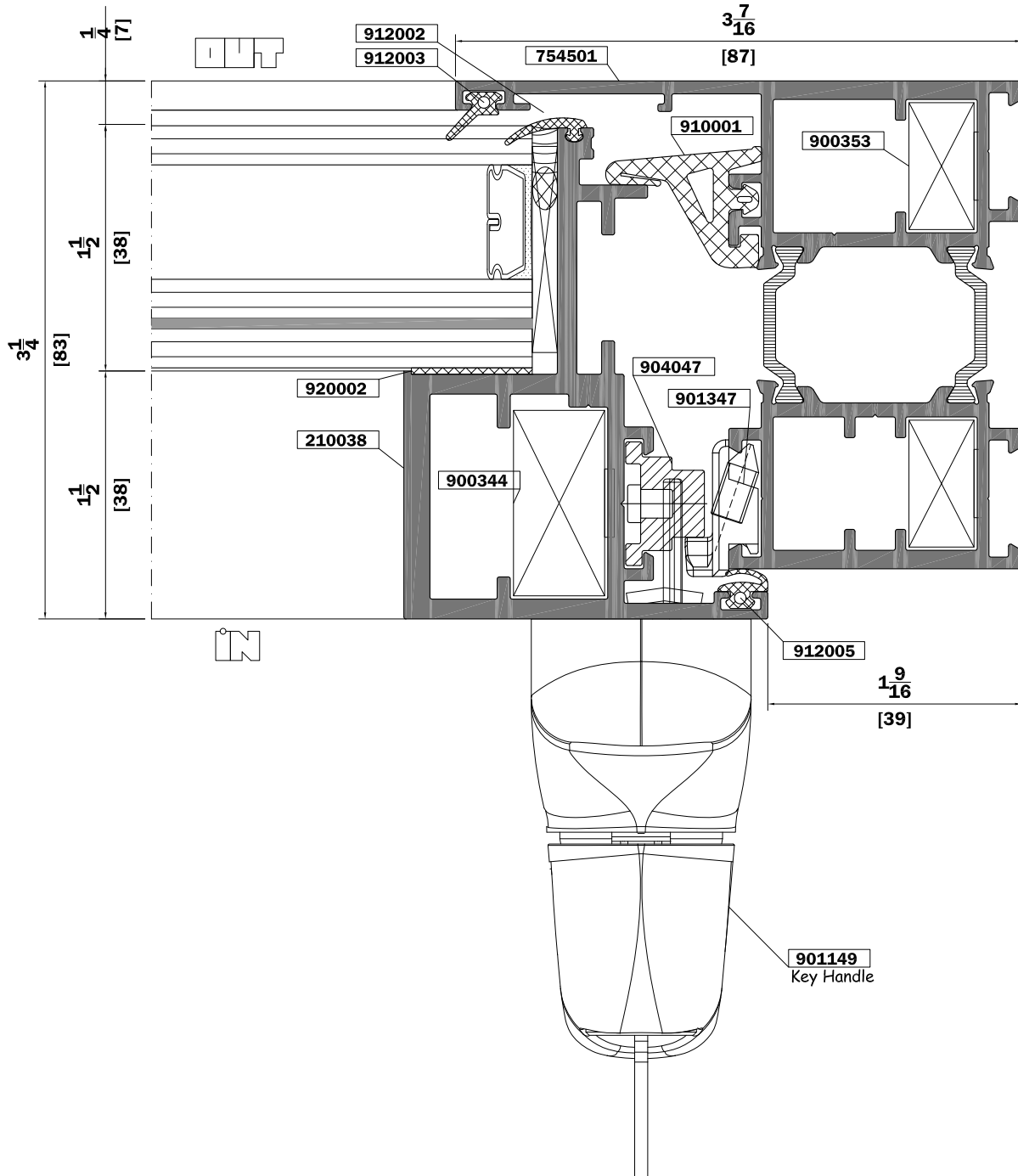
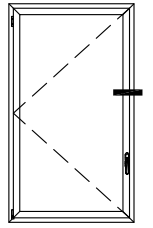
Mid Style Outer frame with 46mm face-fitted vent  
Handle side



SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/24/14
PAGE:	75-02-12

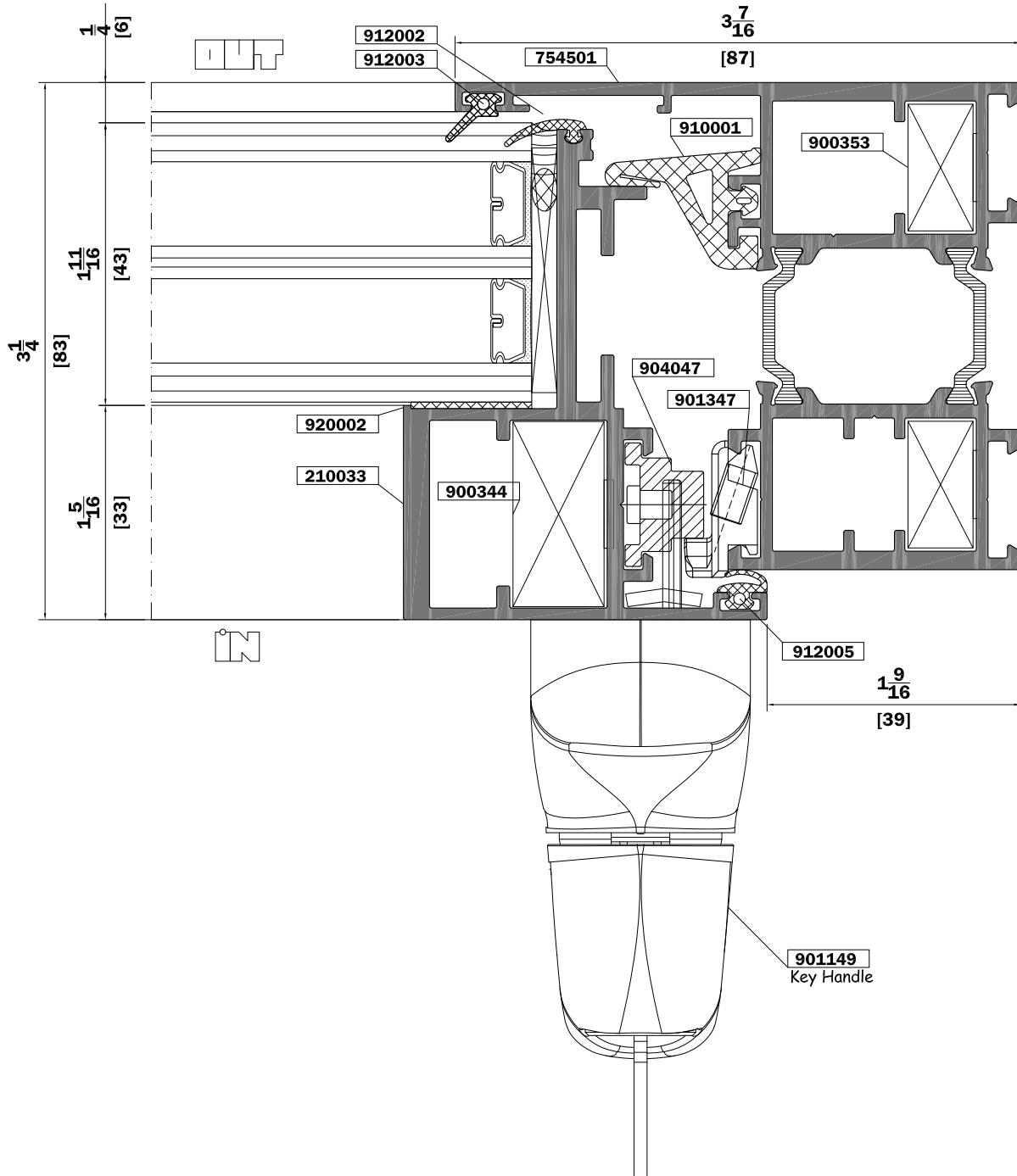
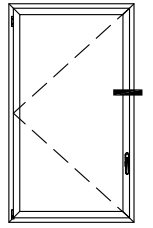


Wide style Outer frame with 38mm face-fitted vent  
Handle side



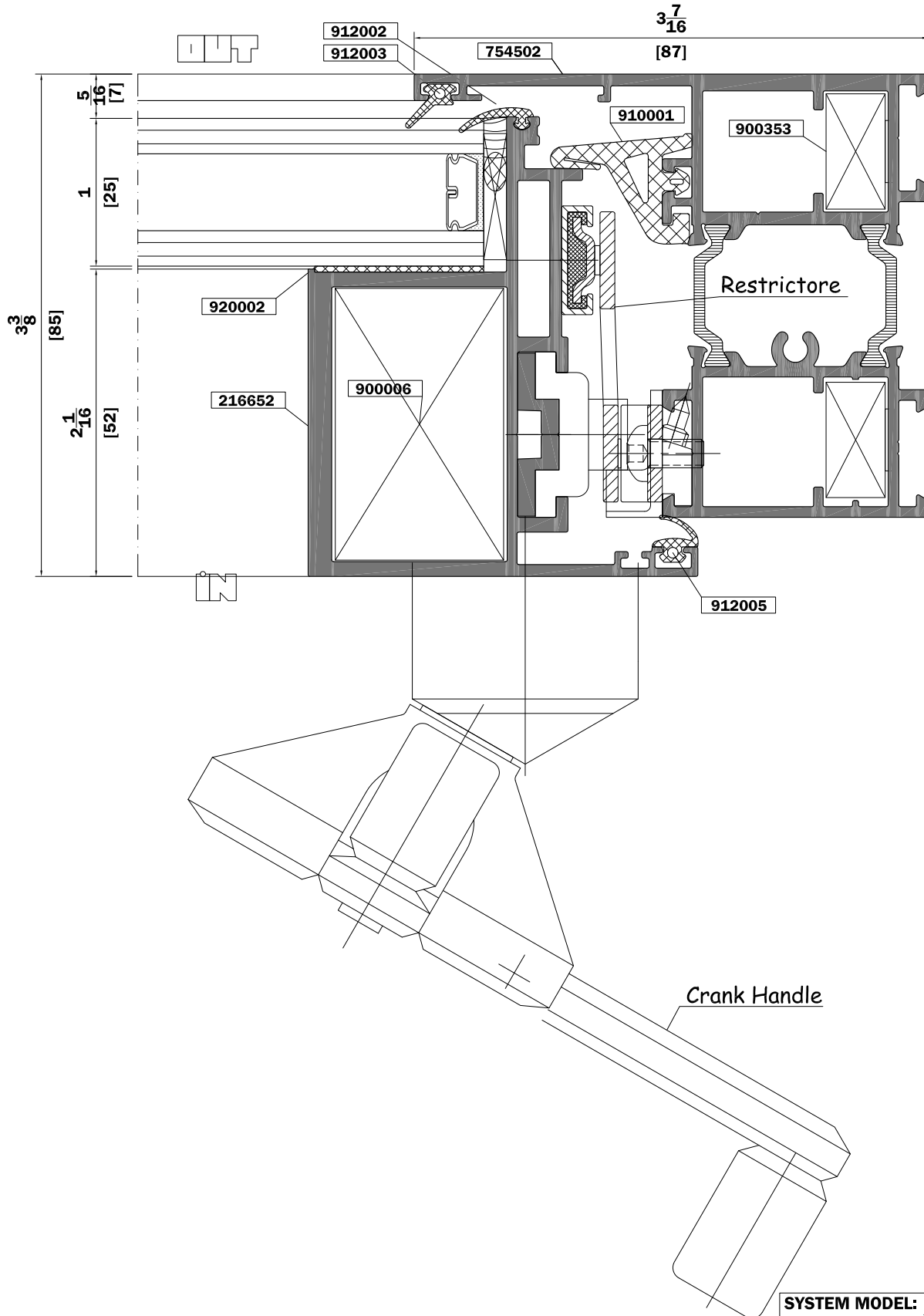
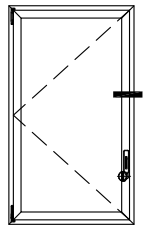
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/24/14
PAGE:	75-02-13

Wide Style Outer frame with 33mm face-fitted vent  
 Handle side. Triple Glazed.



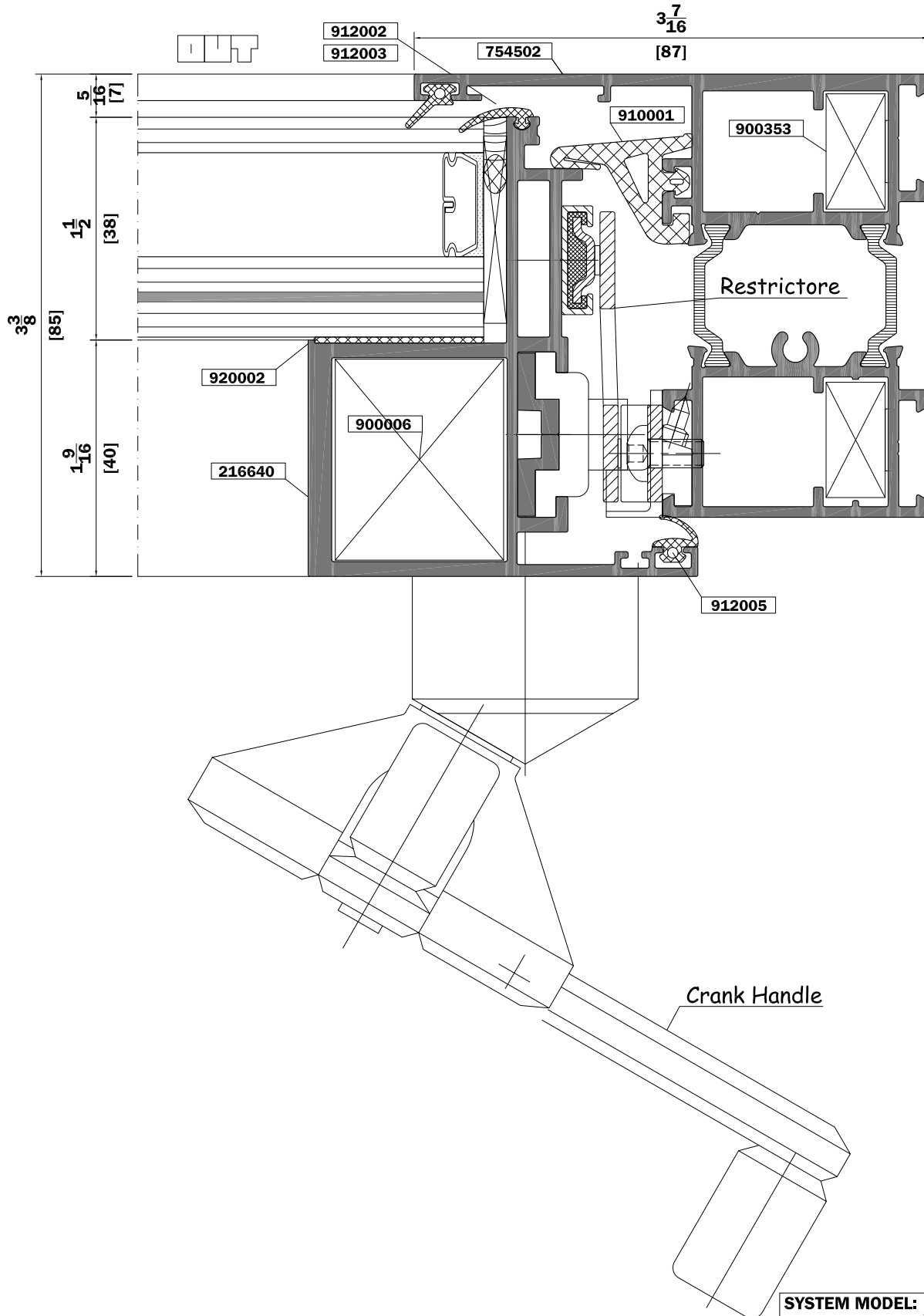
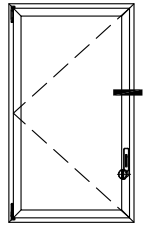
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/24/14
PAGE:	75-02-14

Wide style Outer frame with 52mm face-fitted vent  
Crank Handle side



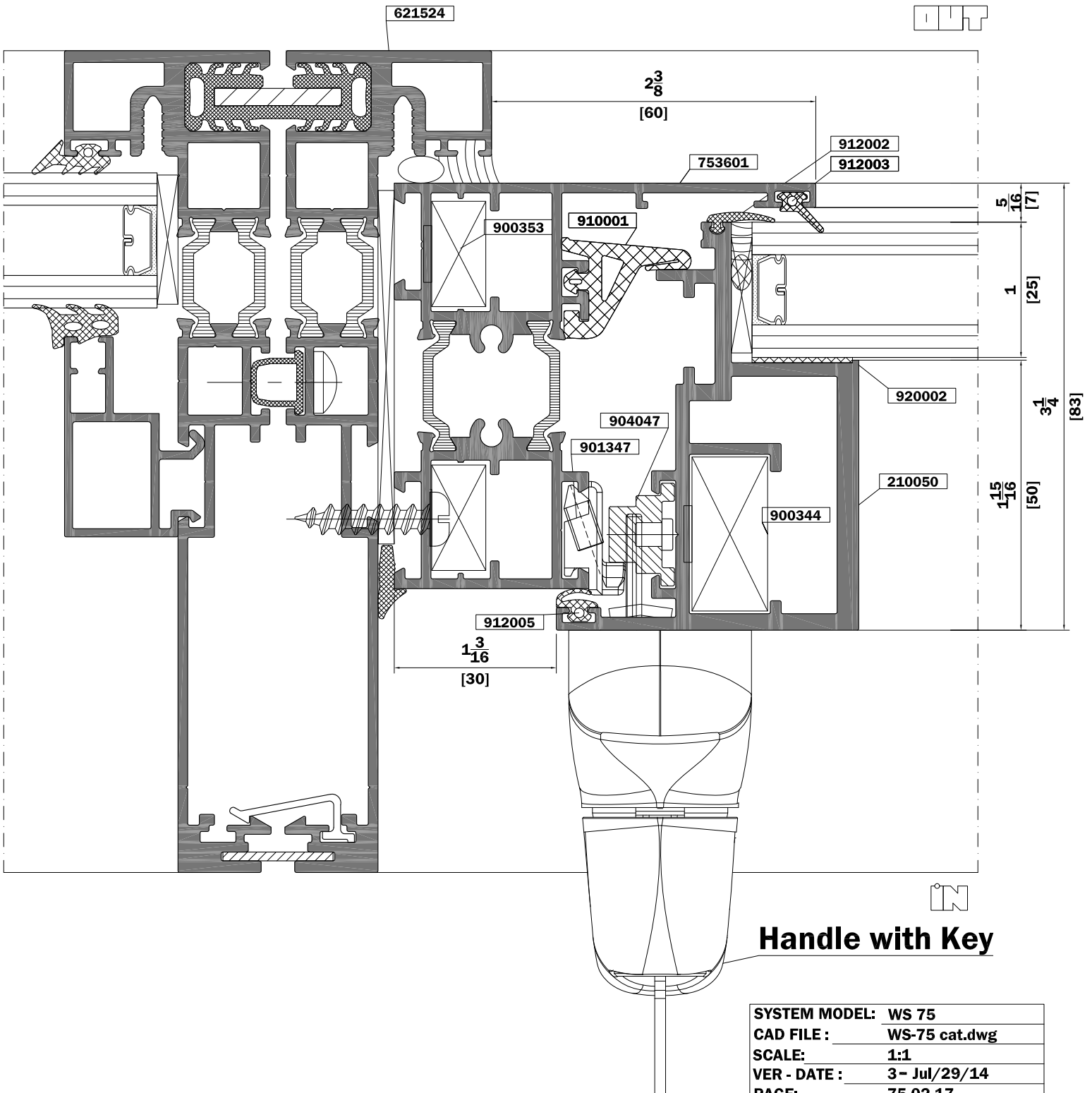
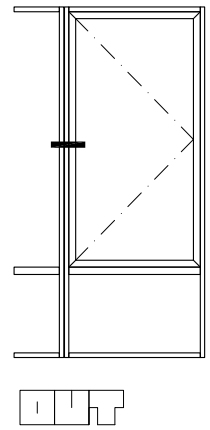
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/24/14
PAGE:	75-02-15

Wide style Outer frame with 40mm face-fitted vent  
Crank Handle side

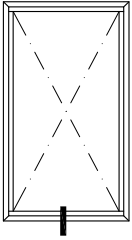
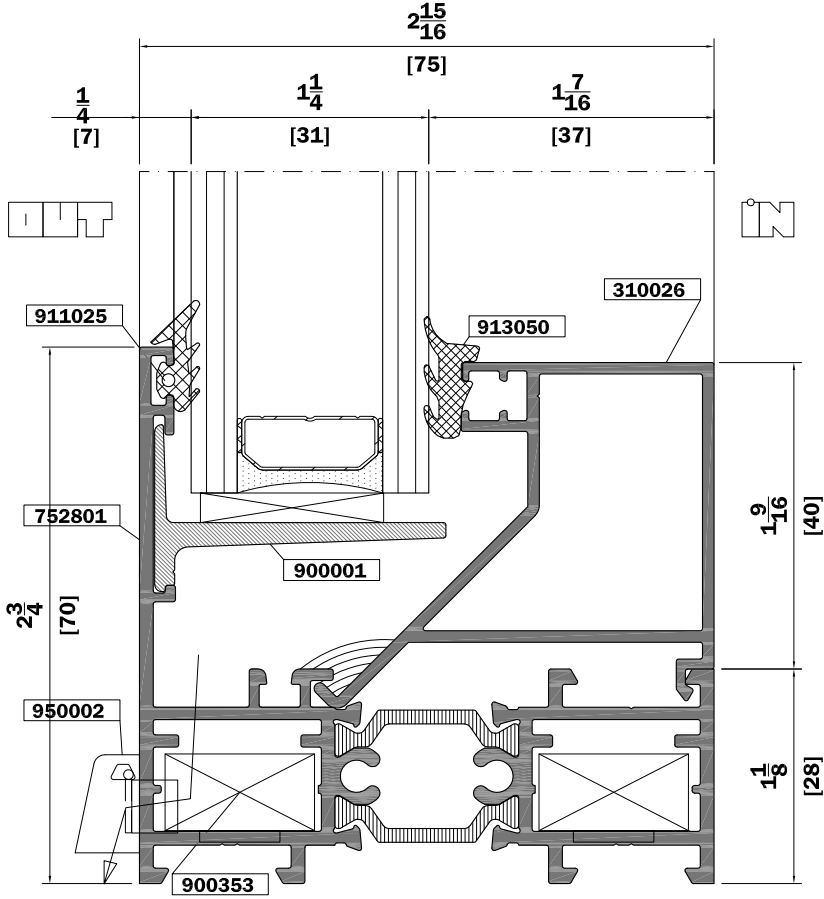


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	4- Jul/24/14
PAGE:	75-02-16

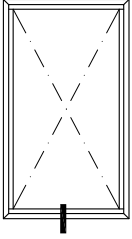
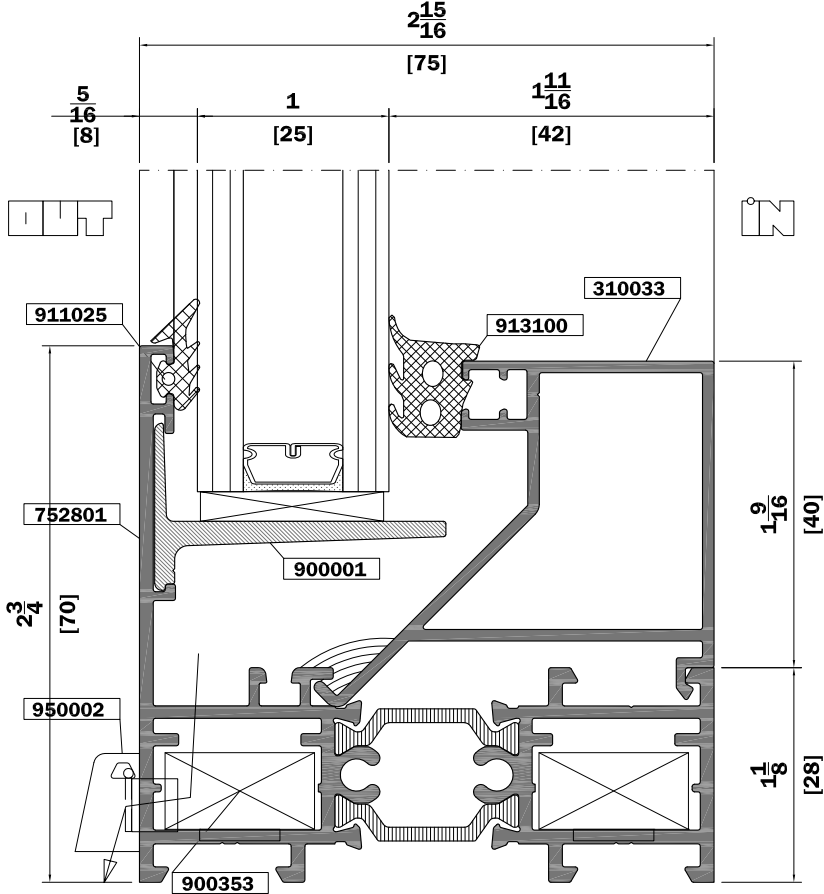
In-Swing casement - 1" Insulated glass  
 Jamb detail - Handle with key  
 Glazed into Window Wall UWWS 62.



### Narrow Style Fixed window with 1.25 in. IGU

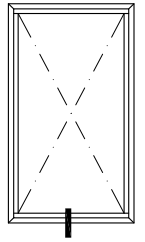
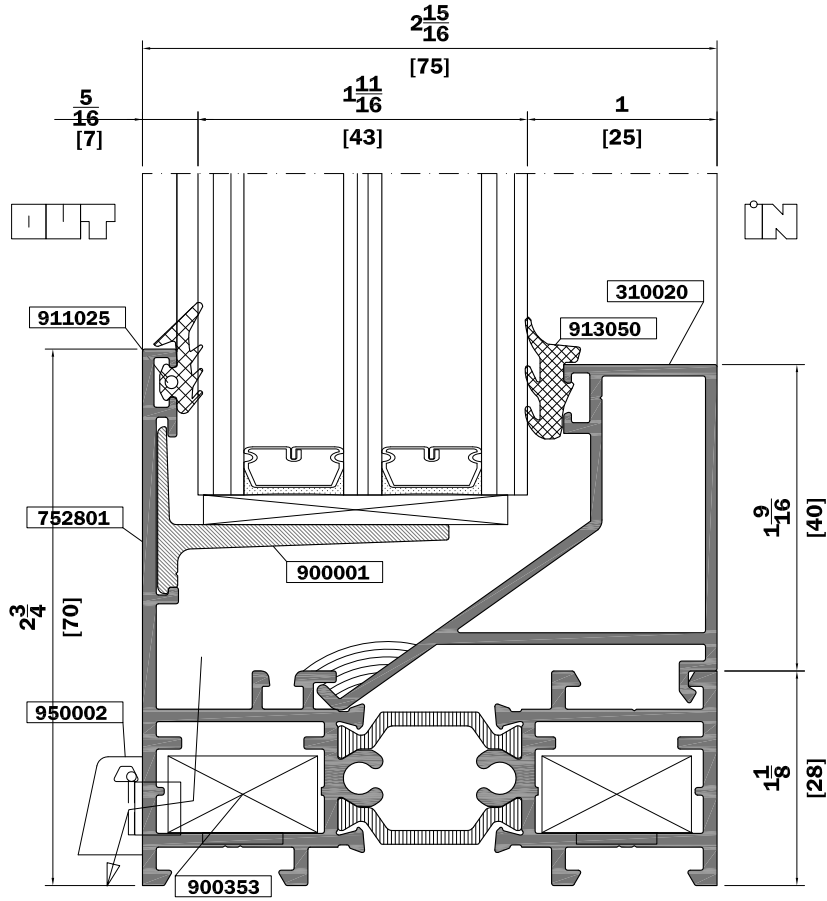


### Narrow Style Fixed window with 1in. IGU

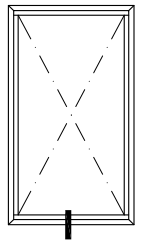
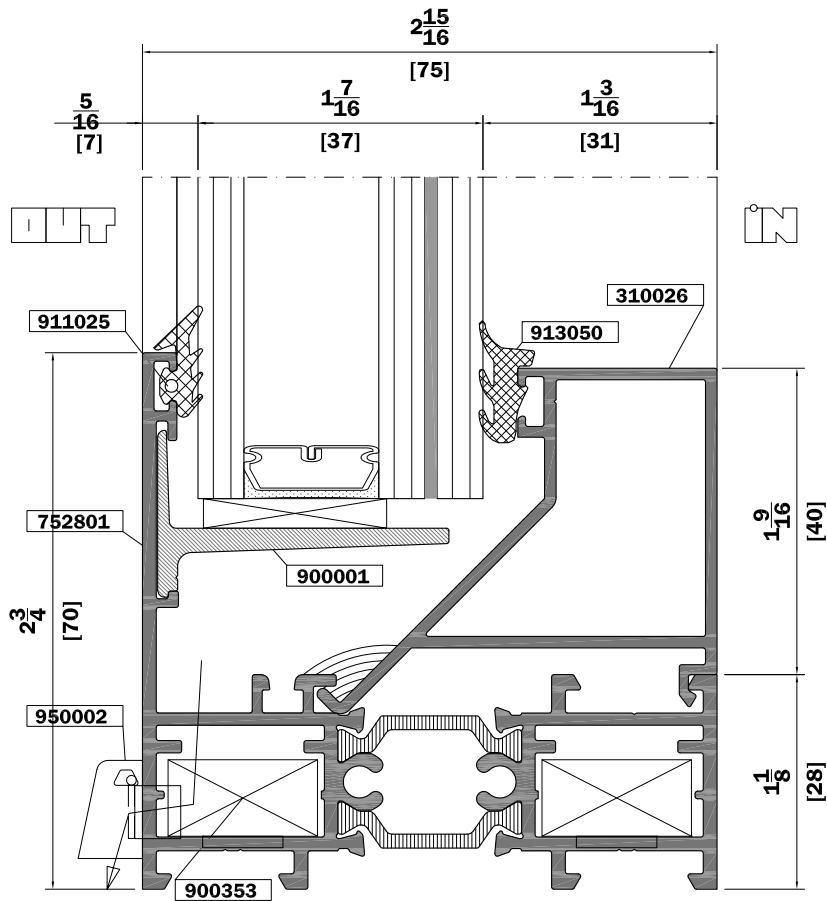


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/24/14
PAGE:	75-03-11

### Narrow Style Fixed window with 1.75 in. Triple IGU

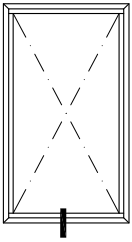
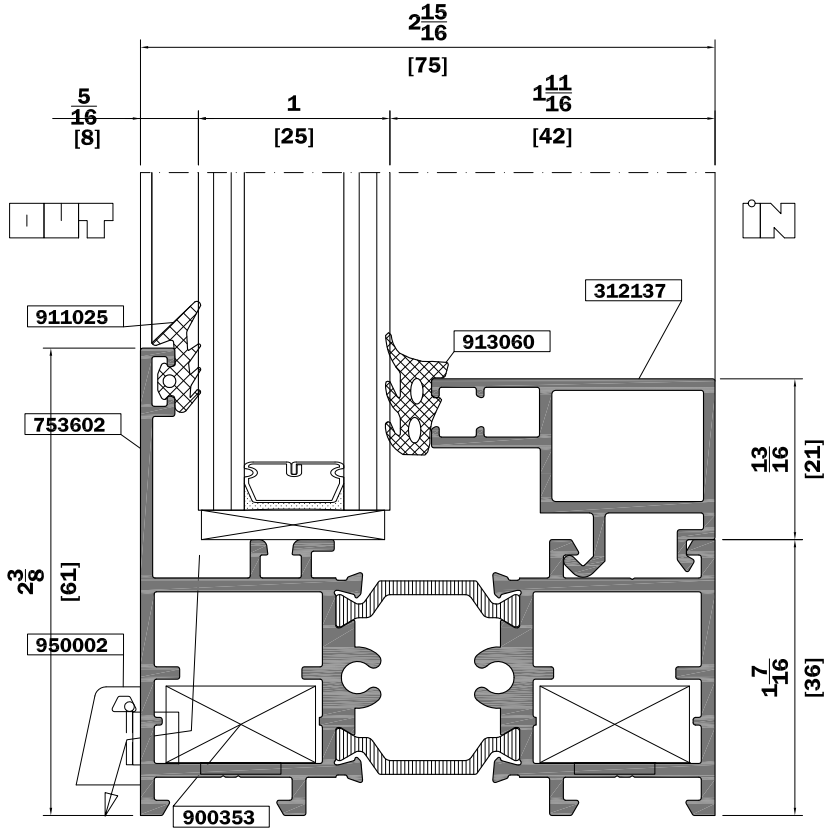


### Narrow Style Fixed window with 1.5in. IGU

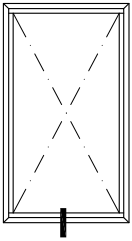
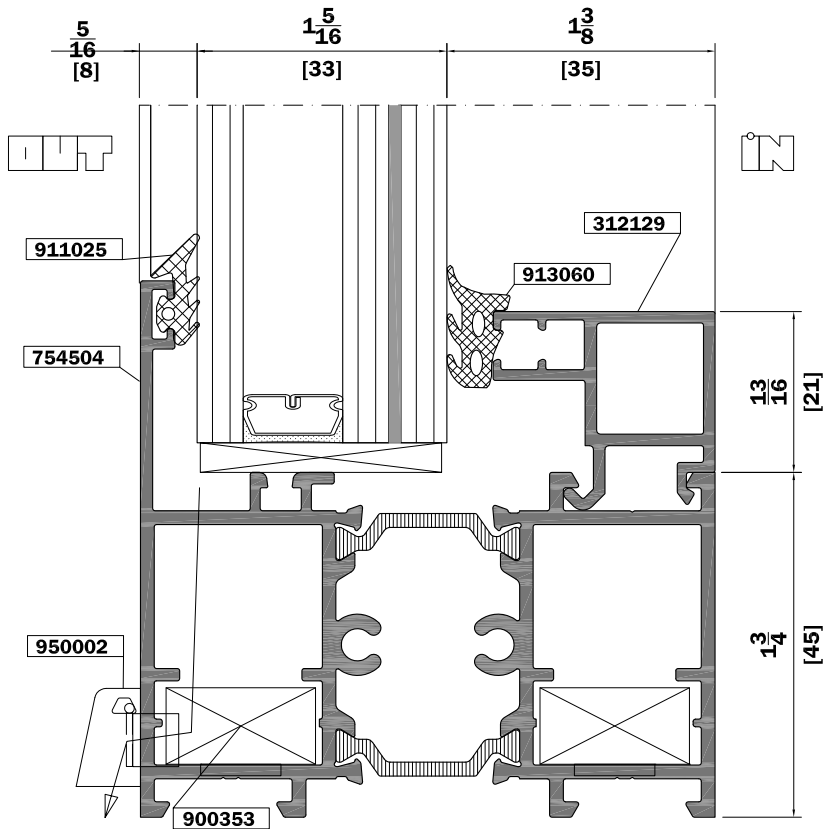


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/24/14
PAGE:	75-03-12

### Mid Style Fixed window with 1in. IGU



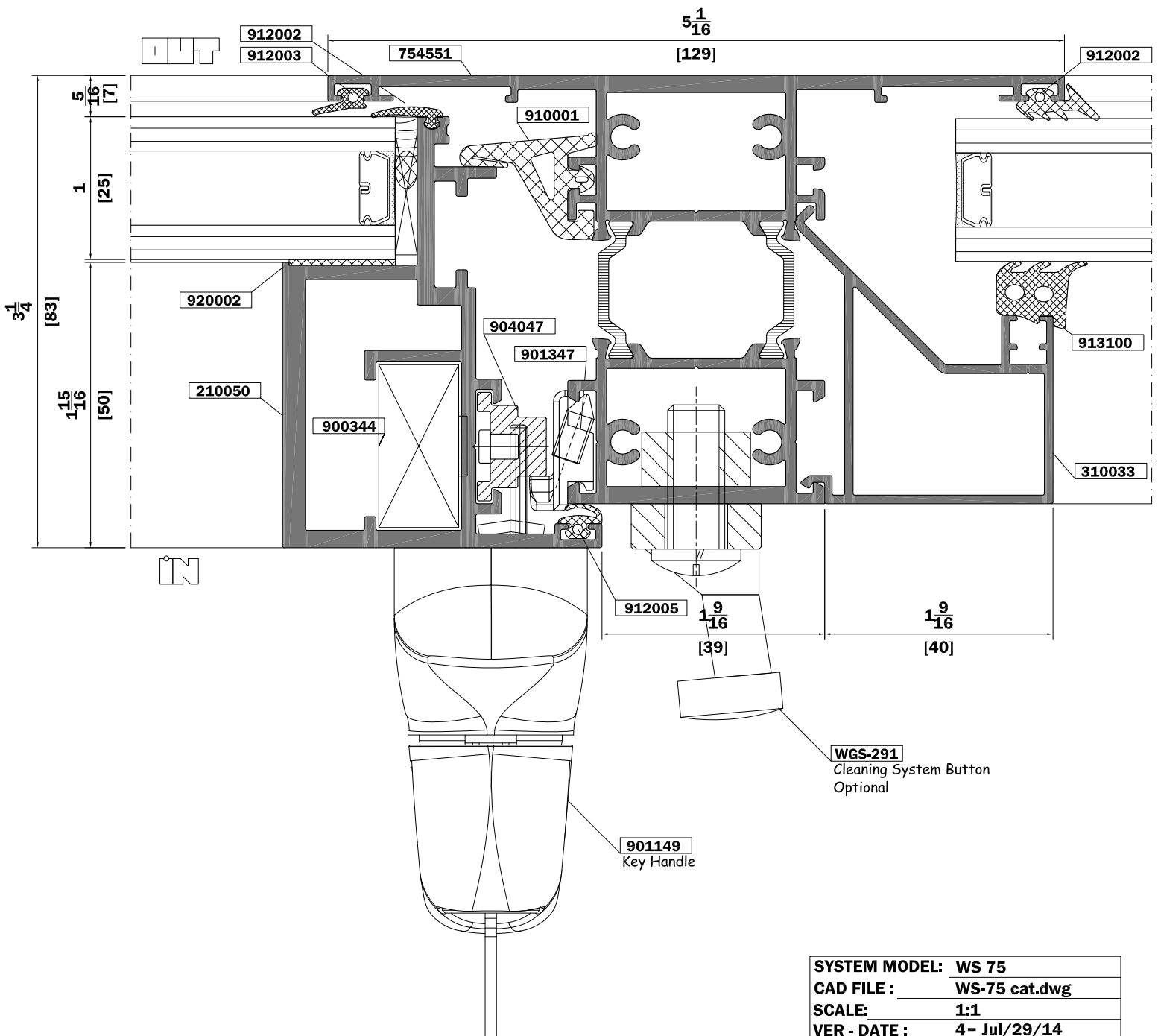
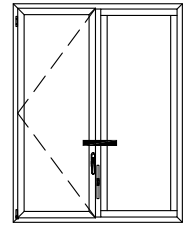
### Wide Style Fixed window with 1.5in. IGU



SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	2- Jul/24/14
PAGE:	75-03-13

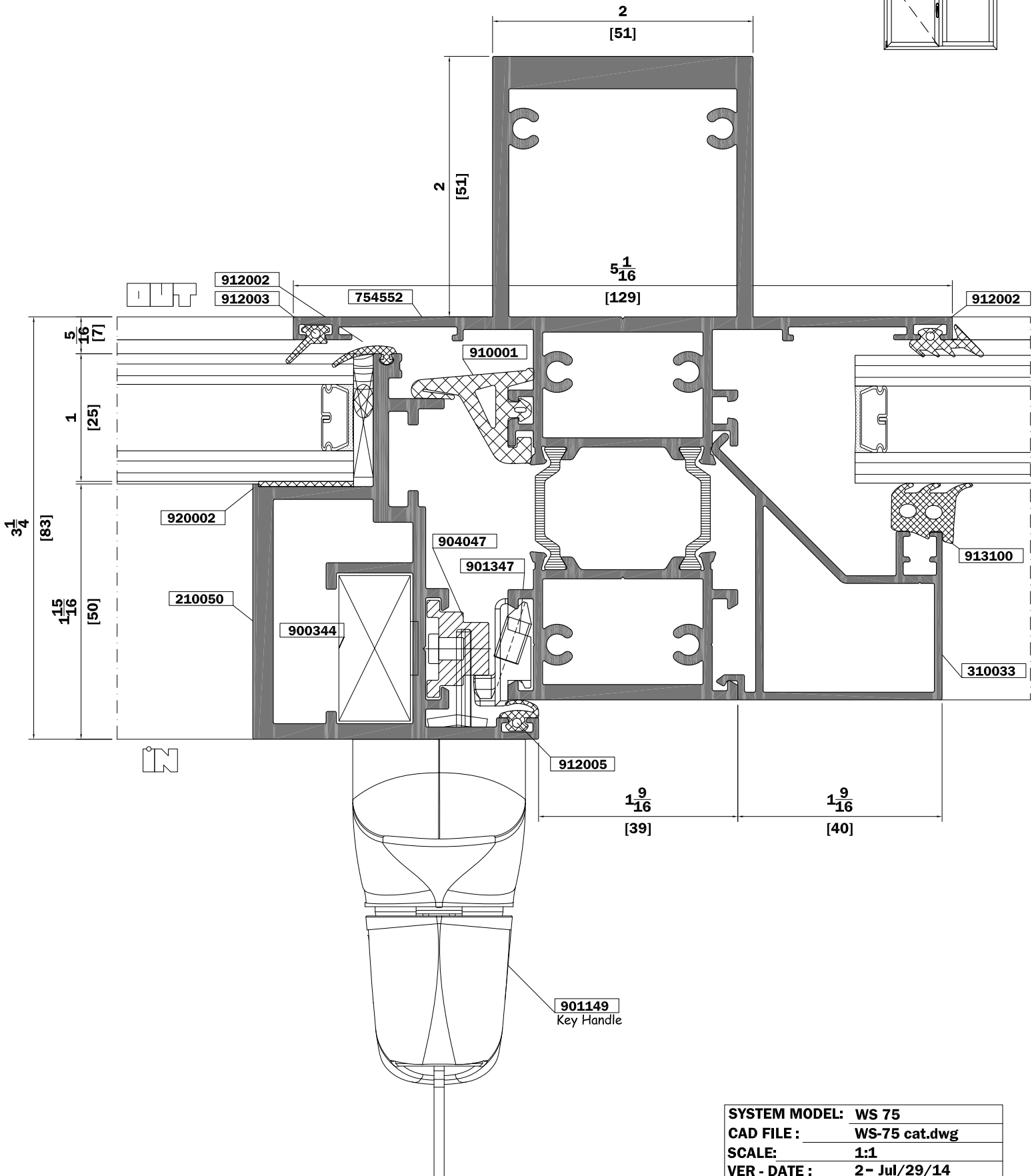
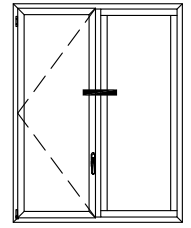


# Wide style Regular Divider with 50mm face-fitted vent and Fixed



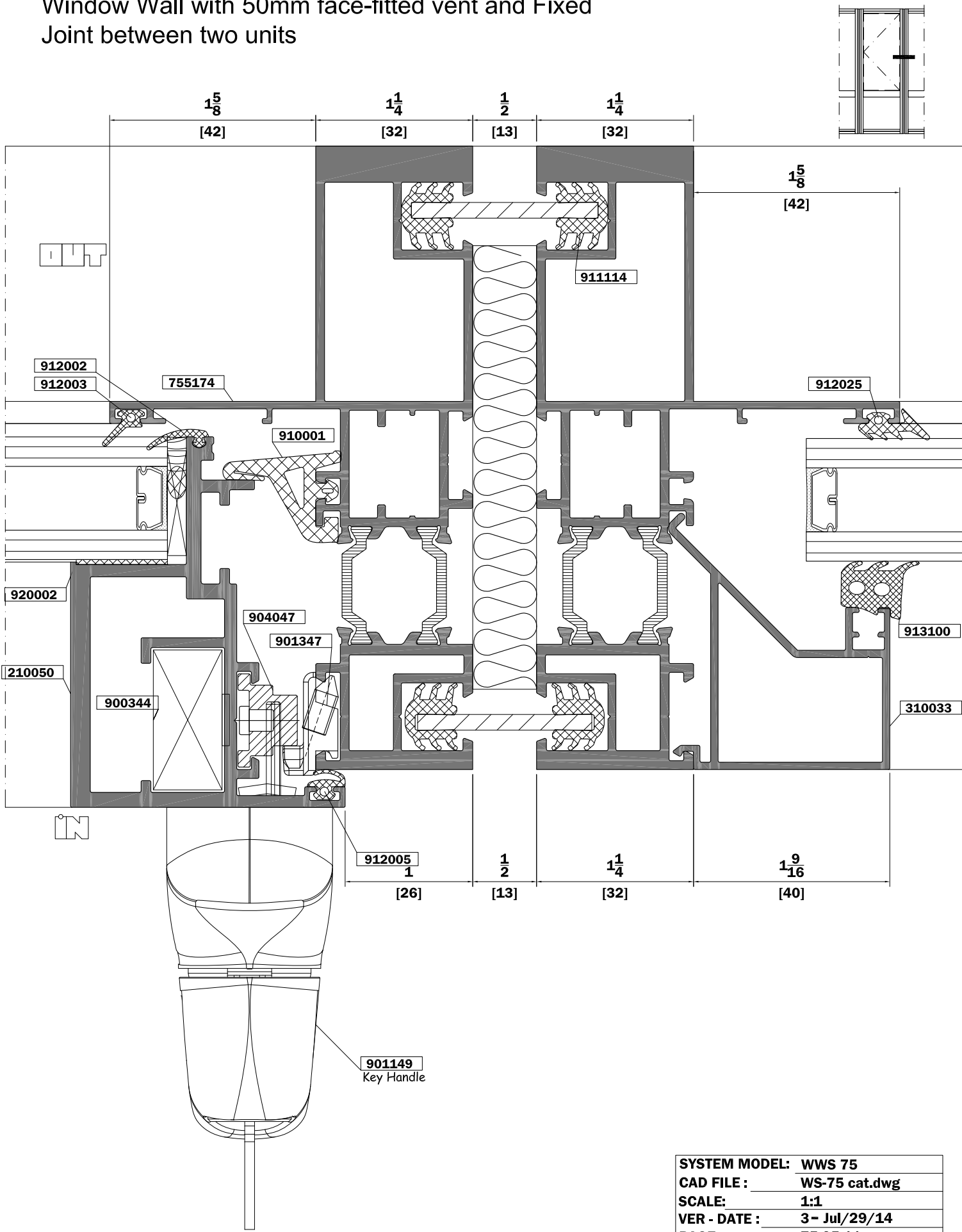
<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>4- Jul/29/14</b>
<b>PAGE:</b>	<b>75-04-11</b>

# Wide style Reinforcement Divider with 50mm face-fitted vent and Fixed



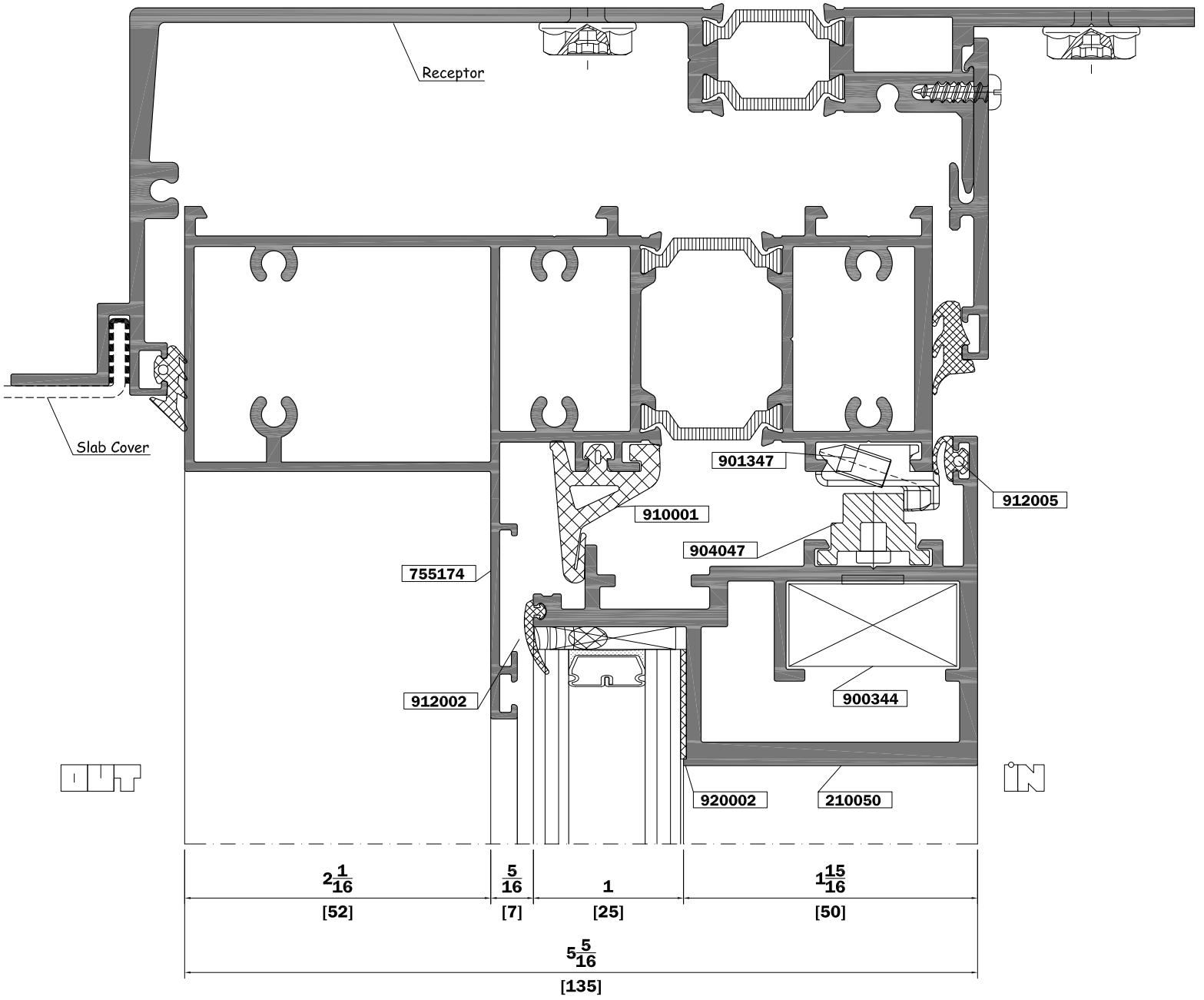
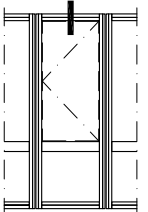
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	2- Jul/29/14
PAGE:	75-04-12

# Window Wall with 50mm face-fitted vent and Fixed Joint between two units



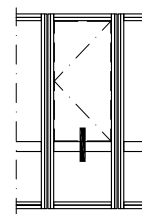
SYSTEM MODEL:	WWS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/29/14
PAGE:	75-05-11

# Window Wall with 50mm face-fitted vent and Fixed Head

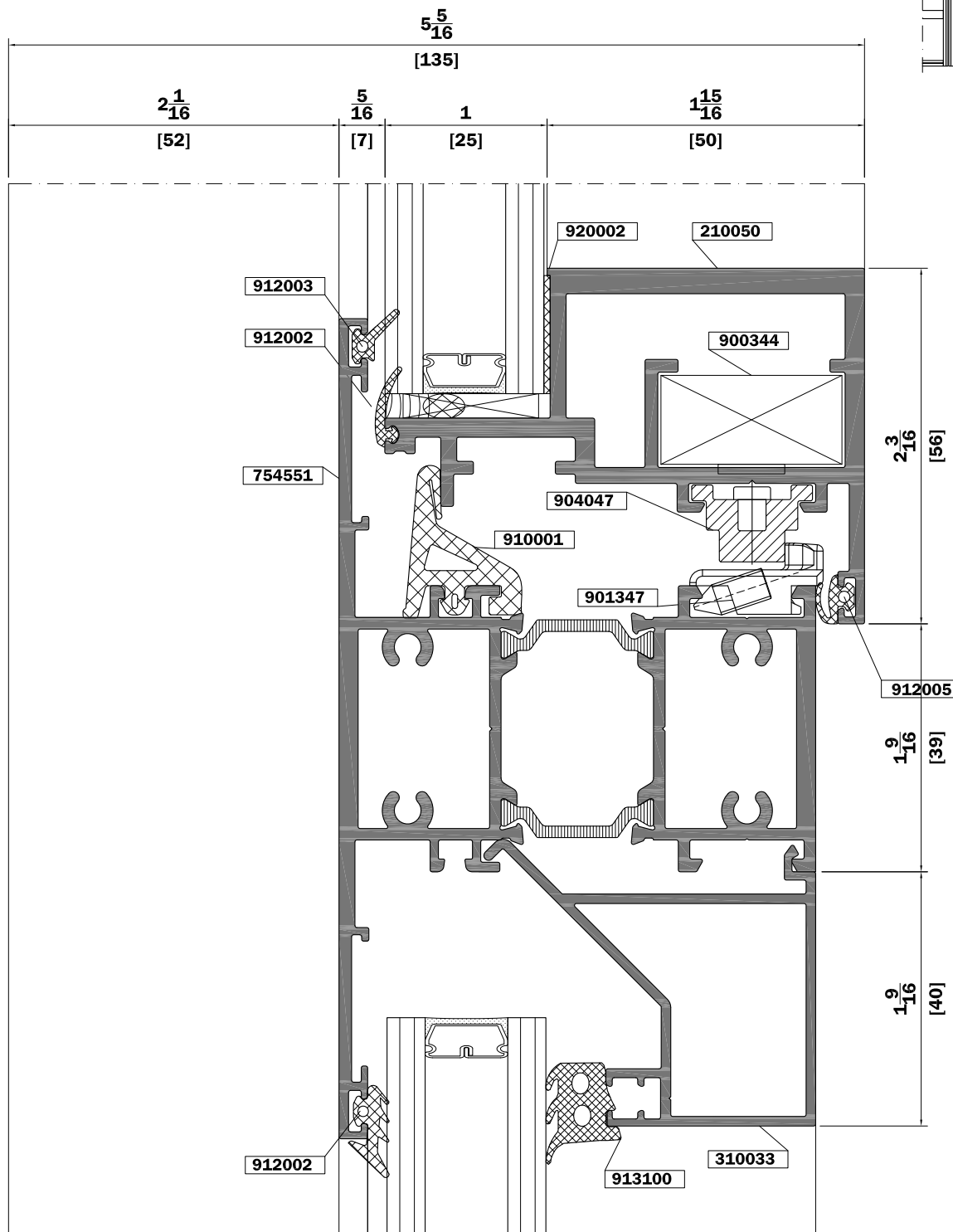


<b>SYSTEM MODEL:</b>	<b>WWS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>3- Jul/29/14</b>
<b>PAGE:</b>	<b>75-05-12</b>

# Window Wall with 50mm face-fitted vent and Fixed Head

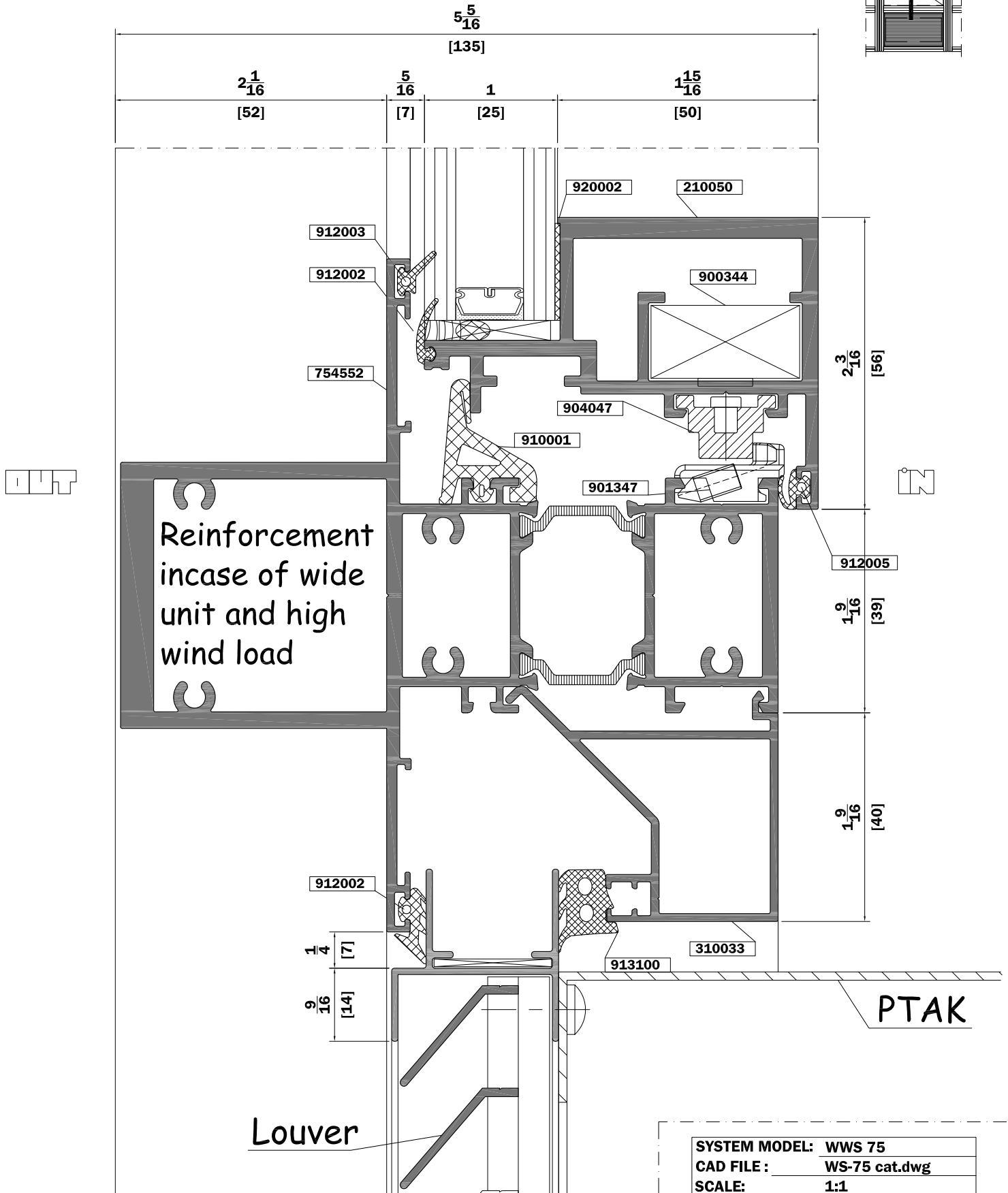
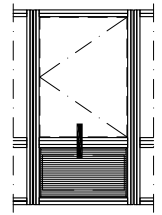


OUT



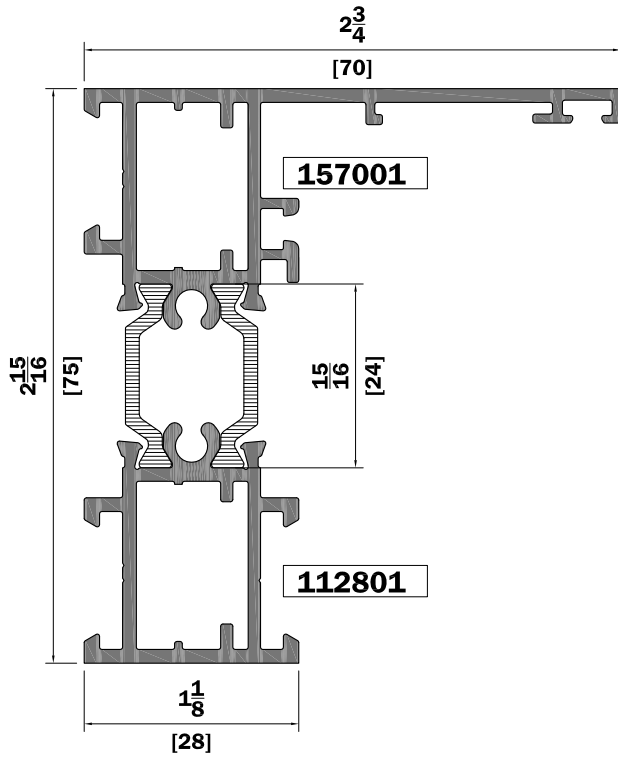
<b>SYSTEM MODEL:</b>	<b>WWS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>3- Jul/29/14</b>
<b>PAGE:</b>	<b>75-05-13</b>

# Window Wall with 50mm face-fitted vent and Fixed Head

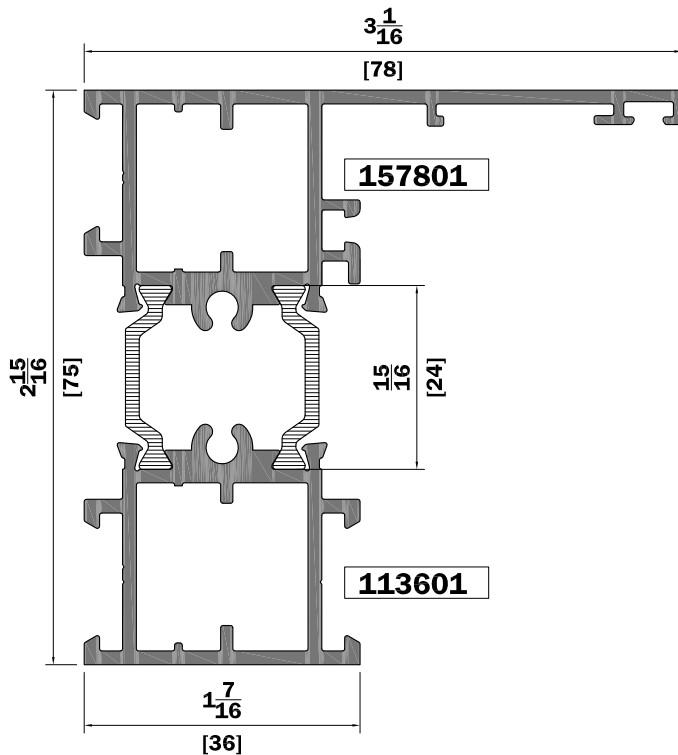


SYSTEM MODEL:	WWS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/29/14
PAGE:	75-05-14

# Profiles



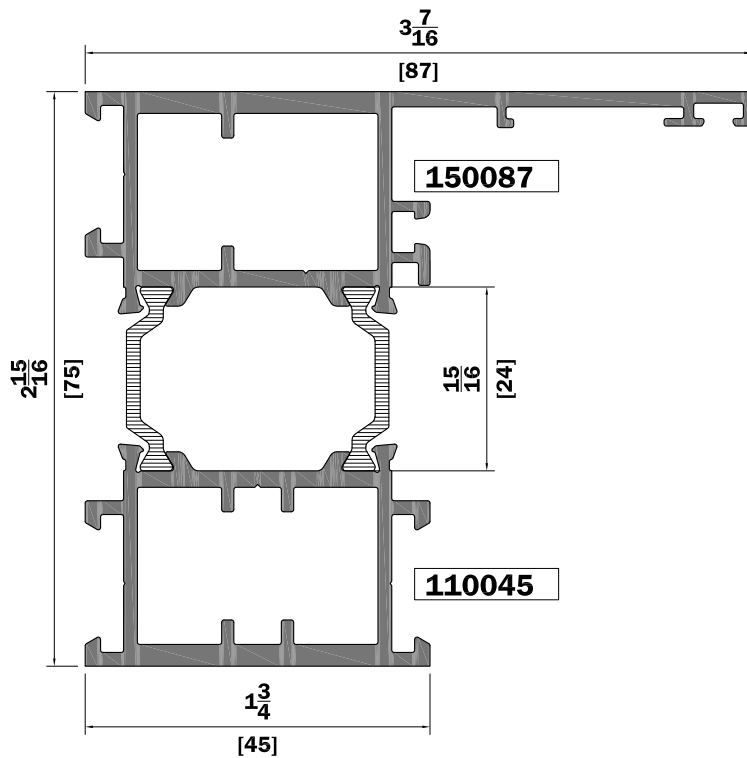
Cataloge No.	752801	
Outer Profile	157001	
Area	0.512 in <sup>2</sup>	330 mm <sup>2</sup>
Weight	0.599 Lb/ft	0.891 Kg/m
Perimeter	12.008 in	305 mm
Exposed	3.110 in	79 mm
Inner Profile	112801	
Area	0.363 in <sup>2</sup>	234 mm <sup>2</sup>
Weight	0.424 Lb/ft	0.632 Kg/m
Perimeter	7.165 in	182 mm
Exposed	1.299 in	33 mm
Thermal Strut	279700	24 mm
Ix	0.801 in <sup>4</sup>	33.3 cm <sup>4</sup>
Iy	0.304 in <sup>4</sup>	12.7 cm <sup>4</sup>
Sx	0.480 in <sup>3</sup>	7.9 cm <sup>3</sup>
Sy	0.151 in <sup>3</sup>	2.5 cm <sup>3</sup>



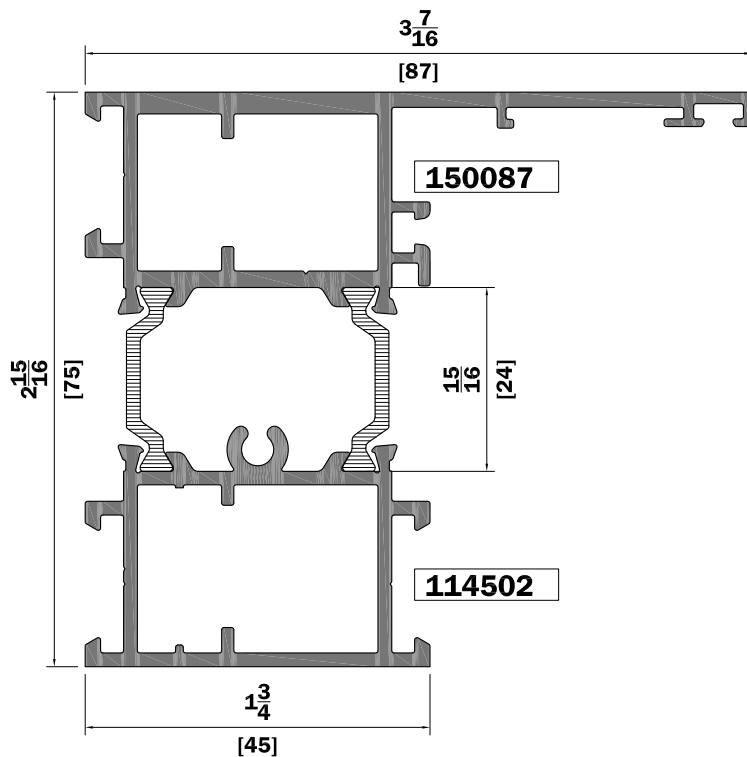
Cataloge No.	753601	
Outer Profile	157801	
Area	0.577 in <sup>2</sup>	372 mm <sup>2</sup>
Weight	0.675 Lb/ft	1.004 Kg/m
Perimeter	12.953 in	329 mm
Exposed	3.425 in	87 mm
Inner Profile	113601	
Area	0.431 in <sup>2</sup>	278 mm <sup>2</sup>
Weight	0.504 Lb/ft	0.751 Kg/m
Perimeter	8.110 in	206 mm
Exposed	1.614 in	41 mm
Thermal Strut	279700	24 mm
Ix	0.887 in <sup>4</sup>	36.9 cm <sup>4</sup>
Iy	0.438 in <sup>4</sup>	18.2 cm <sup>4</sup>
Sx	0.538 in <sup>3</sup>	8.8 cm <sup>3</sup>
Sy	0.202 in <sup>3</sup>	3.3 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>3- Jul/24/14</b>
<b>PAGE:</b>	<b>75-10-11</b>



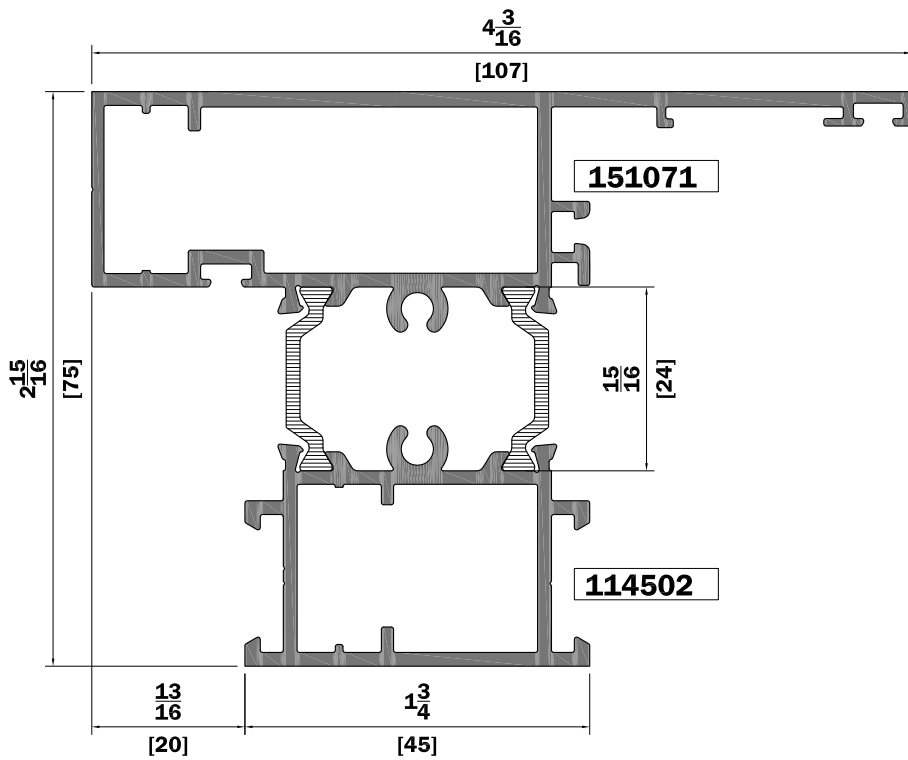


Cataloge No.	754501	
Outer Profile	150087	
Area	0.676 in <sup>2</sup>	436 mm <sup>2</sup>
Weight	0.791 Lb/ft	1.177 Kg/m
Perimeter	12.677 in	322 mm
Exposed	3.780 in	96 mm
Inner Profile	110045	
Area	0.533 in <sup>2</sup>	344 mm <sup>2</sup>
Wieht	0.624 Lb/ft	0.929 Kg/m
Perimeter	7.874 in	200 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	1.237 in <sup>4</sup>	51.5 cm <sup>4</sup>
Iy	0.689 in <sup>4</sup>	28.7 cm <sup>4</sup>
Sx	0.763 in <sup>3</sup>	12.5 cm <sup>3</sup>
Sy	0.293 in <sup>3</sup>	4.8 cm <sup>3</sup>

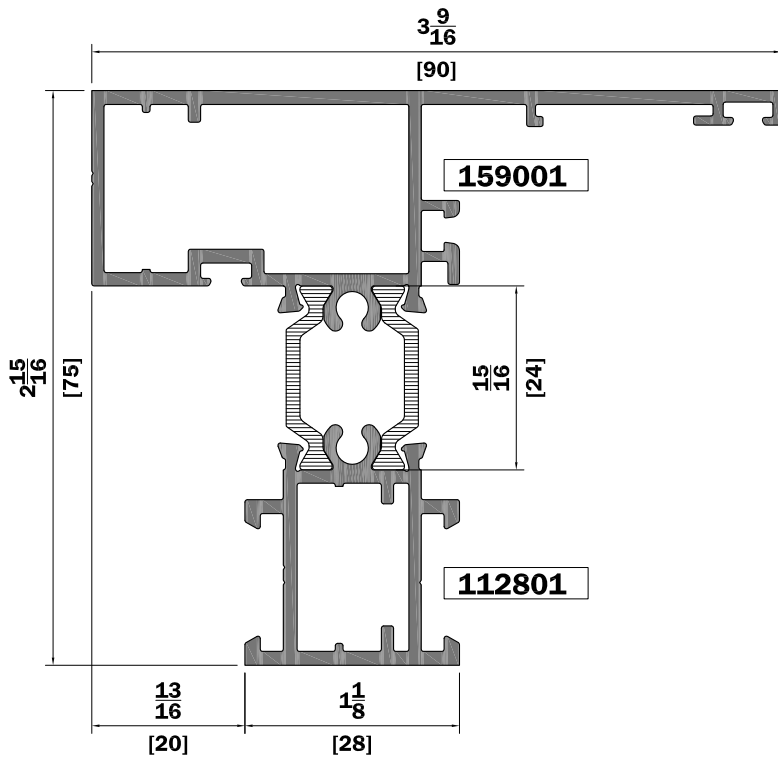


Cataloge No.	754502	
Outer Profile	150087	
Area	0.676 in <sup>2</sup>	436 mm <sup>2</sup>
Weight	0.791 Lb/ft	1.177 Kg/m
Perimeter	12.677 in	322 mm
Exposed	3.780 in	96 mm
Inner Profile	114502	
Area	0.496 in <sup>2</sup>	315 mm <sup>2</sup>
Wieht	0.571 Lb/ft	0.851 Kg/m
Perimeter	8.78 in	223 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	1.231 in <sup>4</sup>	51.2 cm <sup>4</sup>
Iy	0.69 in <sup>4</sup>	28.7 cm <sup>4</sup>
Sx	0.762 in <sup>3</sup>	12.5 cm <sup>3</sup>
Sy	0.293 in <sup>3</sup>	4.8 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>3- Jul/29/14</b>
<b>PAGE:</b>	<b>75-10-12</b>

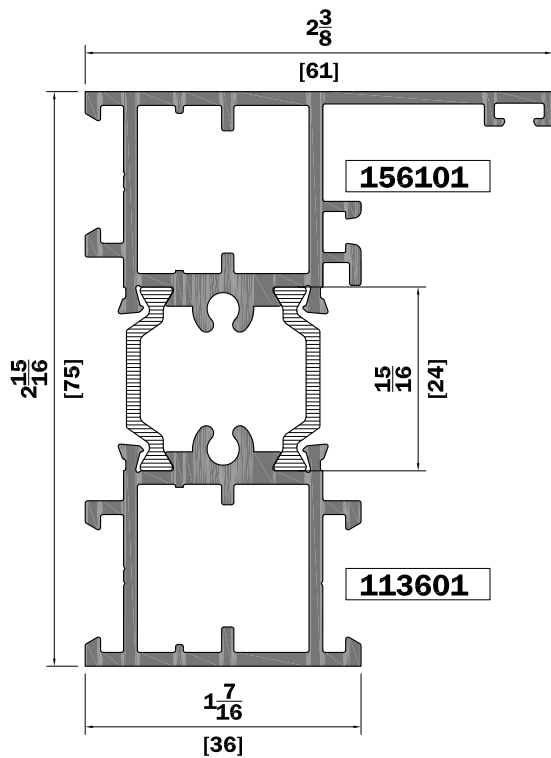


Cataloge No.	754503	
Outer Profile	151071	
Area	0.773 in <sup>2</sup>	499 mm <sup>2</sup>
Weight	0.905 Lb/ft	1.347 Kg/m
Perimeter	14.961 in	380 mm
Exposed	4.567 in	116 mm
Inner Profile	114502	
Area	0.57 in <sup>2</sup>	315 mm <sup>2</sup>
Wieght	0.571 Lb/ft	0.851 Kg/m
Perimeter	8.78 in	223 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	1.252 in <sup>4</sup>	52.1 cm <sup>4</sup>
Iy	1.009 in <sup>4</sup>	42 cm <sup>4</sup>
Sx	0.767 in <sup>3</sup>	12.6 cm <sup>3</sup>
Sy	0.403 in <sup>3</sup>	6.6 cm <sup>3</sup>

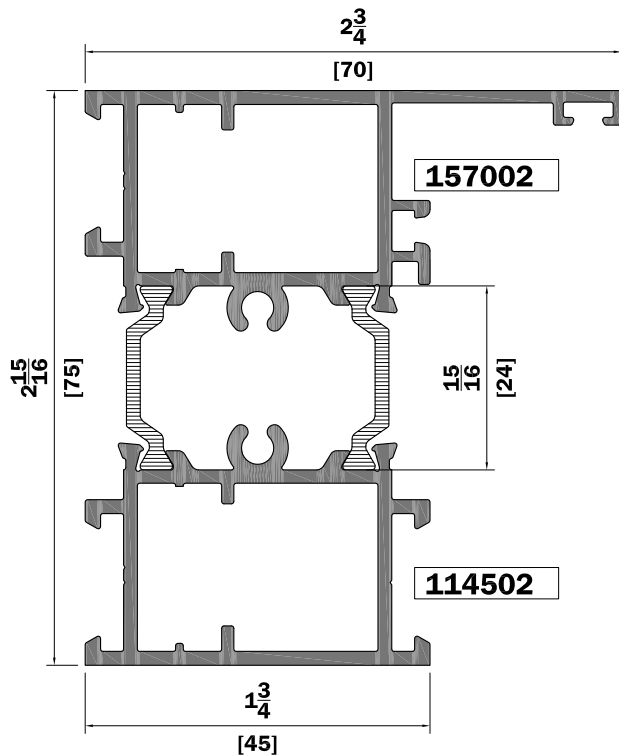


Cataloge No.	752802	
Outer Profile	159001	
Area	0.622 in <sup>2</sup>	401 mm <sup>2</sup>
Weight	0.727 Lb/ft	1.083 Kg/m
Perimeter	13.386 in	340 mm
Exposed	3.898 in	99 mm
Inner Profile	112801	
Area	0.363 in <sup>2</sup>	234 mm <sup>2</sup>
Wieght	0.424 Lb/ft	0.632 Kg/m
Perimeter	7.165 in	182 mm
Exposed	1.299 in	33 mm
Thermal Strut	279700	24 mm
Ix	0.870 in <sup>4</sup>	36.2 cm <sup>4</sup>
Iy	0.512 in <sup>4</sup>	21.3 cm <sup>4</sup>
Sx	0.500 in <sup>3</sup>	8.2 cm <sup>3</sup>
Sy	0.238 in <sup>3</sup>	3.9 cm <sup>3</sup>

SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	3- Jul/29/14
PAGE:	75-10-13

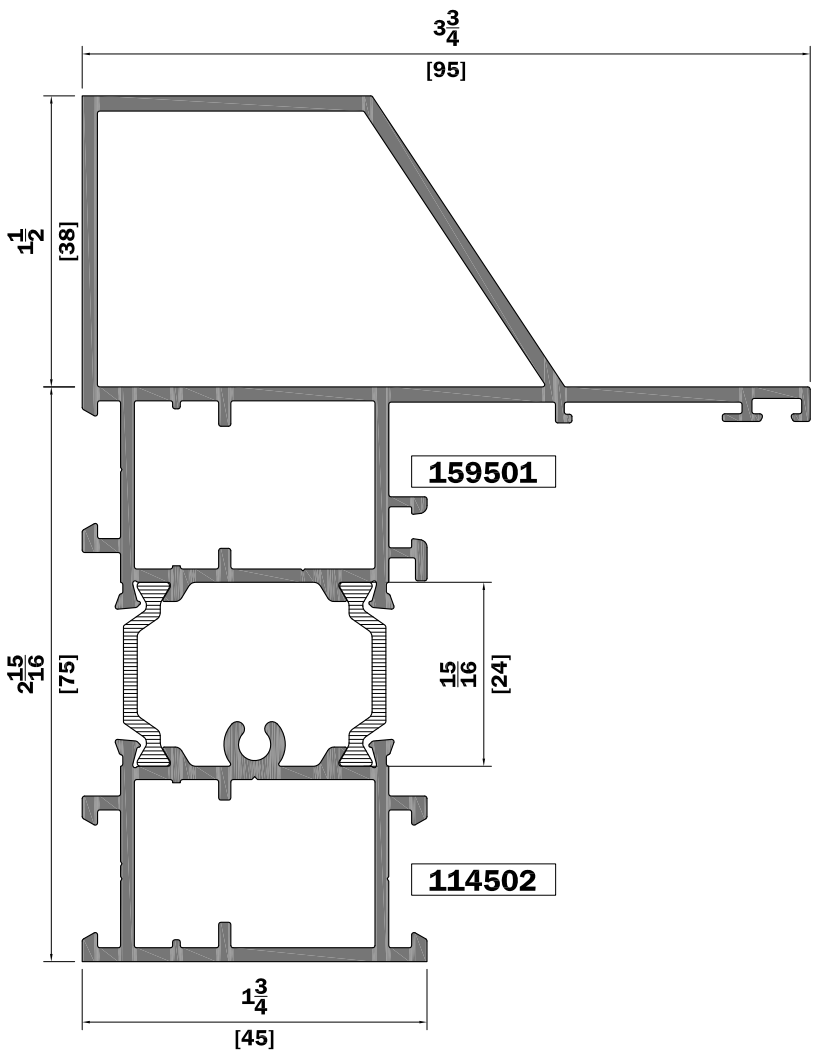


Cataloge No.	753602	
Outer Profile	156101	
Area	0.522 in <sup>2</sup>	337 mm <sup>2</sup>
Weight	0.611 Lb/ft	0.910 Kg/m
Perimeter	11.339 in	288 mm
Exposed	2.756 in	70 mm
Inner Profile	113601	
Area	0.431 in <sup>2</sup>	278 mm <sup>2</sup>
Weight	0.504 Lb/ft	0.751 Kg/m
Perimeter	8.110 in	206 mm
Exposed	1.614 in	41 mm
Thermal Strut	279700	24 mm
Ix	0.810 in <sup>4</sup>	33.7 cm <sup>4</sup>
Iy	0.260 in <sup>4</sup>	10.8 cm <sup>4</sup>
Sx	0.510 in <sup>3</sup>	8.4 cm <sup>3</sup>
Sy	0.163 in <sup>3</sup>	2.7 cm <sup>3</sup>



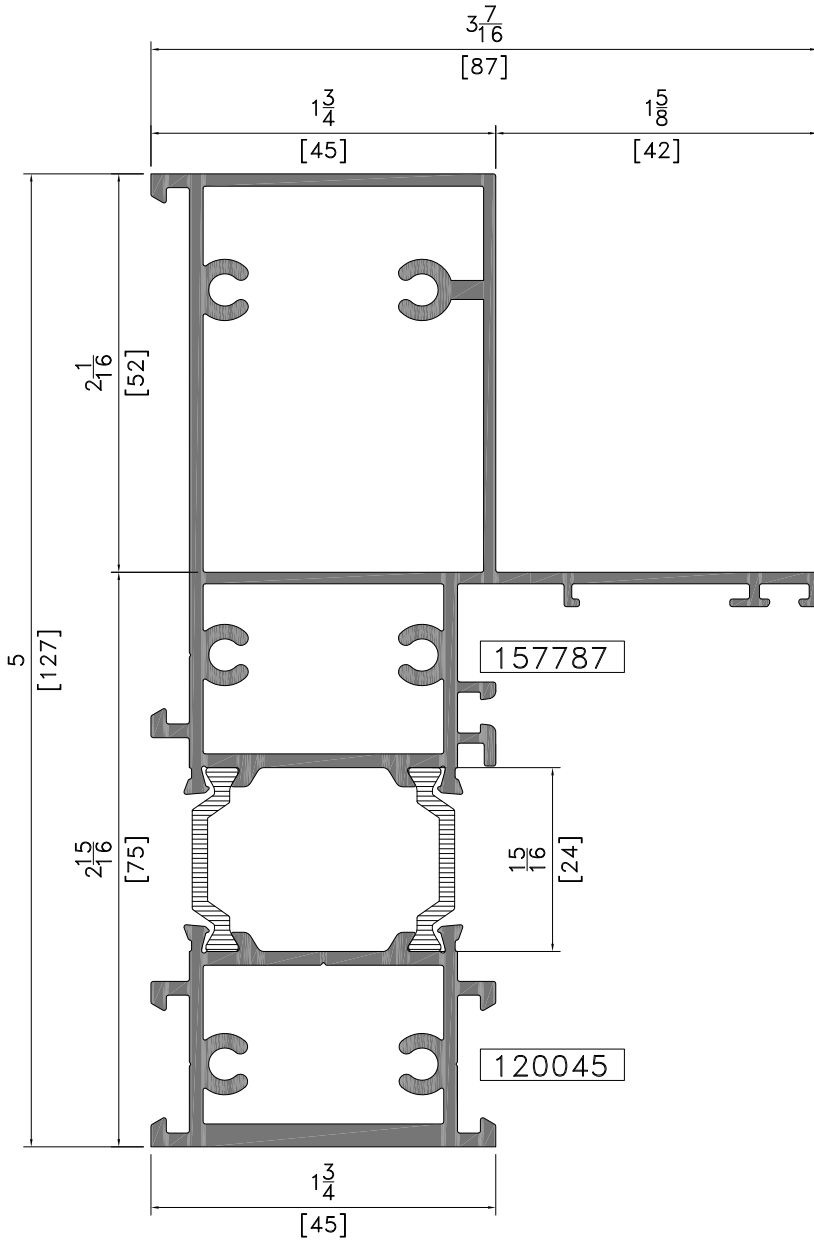
Cataloge No.	754504	
Outer Profile	157002	
Area	0.564 in <sup>2</sup>	364 mm <sup>2</sup>
Weight	0.66 Lb/ft	0.983 Kg/m
Perimeter	11.772 in	299 mm
Exposed	3.110 in	79 mm
Inner Profile	114502	
Area	0.57 in <sup>2</sup>	315 mm <sup>2</sup>
Weight	0.571 Lb/ft	0.851 Kg/m
Perimeter	8.78 in	223 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	1.032 in <sup>4</sup>	43 cm <sup>4</sup>
Iy	0.438 in <sup>4</sup>	18.2 cm <sup>4</sup>
Sx	0.694 in <sup>3</sup>	11.4 cm <sup>3</sup>
Sy	0.245 in <sup>3</sup>	4 cm <sup>3</sup>

SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	2- Jul/29/14
PAGE:	75-10-14



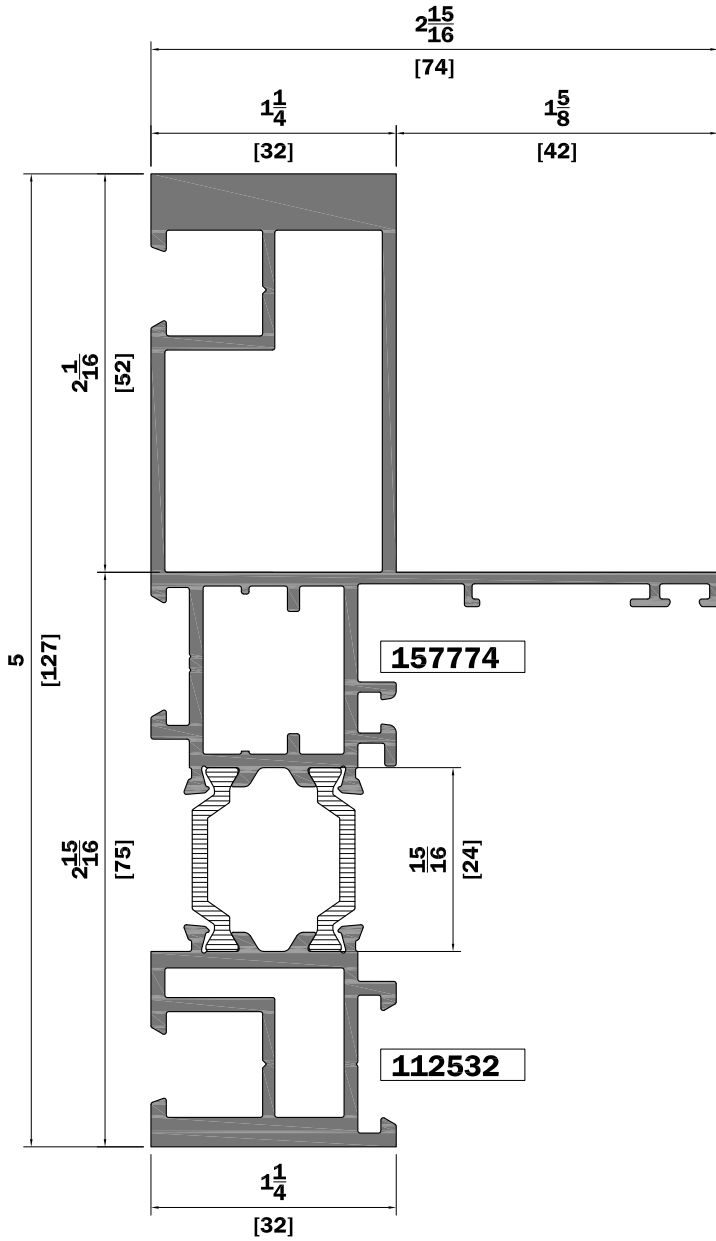
Cataloge No.	754508	
Outer Profile	159501	
Area	0.993 in <sup>2</sup>	640.8 mm <sup>2</sup>
Weight	1.162 Lb/ft	1.73 Kg/m
Perimeter	15.61 in	396.5 mm
Exposed	4.823 in	122.5 mm
Inner Profile	114502	
Area	0.57 in <sup>2</sup>	315 mm <sup>2</sup>
Wieht	0.571 Lb/ft	0.851 Kg/m
Perimeter	8.78 in	223 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	2.362 in <sup>4</sup>	98.3 cm <sup>4</sup>
Iy	1.049 in <sup>4</sup>	43.6 cm <sup>4</sup>
Sx	1.029 in <sup>3</sup>	16.9 cm <sup>3</sup>
Sy	0.399 in <sup>3</sup>	6.5 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- Aug/03/14</b>
<b>PAGE:</b>	<b>75-10-15</b>



Cataloge No.	755187	
Outer Profile	158087	
Area	1.094 in <sup>2</sup>	706 mm <sup>2</sup>
Weight	1.281 Lb/ft	1.906 Kg/m
Perimeter	16.811 in	427 mm
Exposed	5.827 in	148 mm
Inner Profile	120045	
Area	0.57 in <sup>2</sup>	368 mm <sup>2</sup>
Weight	0.668 Lb/ft	0.994 Kg/m
Perimeter	7.874 in	200 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	3.694 in <sup>4</sup>	153.8 cm <sup>4</sup>
Iy	0.844 in <sup>4</sup>	35.1 cm <sup>4</sup>
Sx	1.343 in <sup>3</sup>	22 cm <sup>3</sup>
Sy	0.355 in <sup>3</sup>	5.8 cm <sup>3</sup>

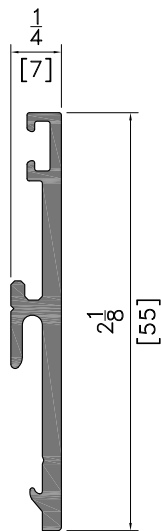
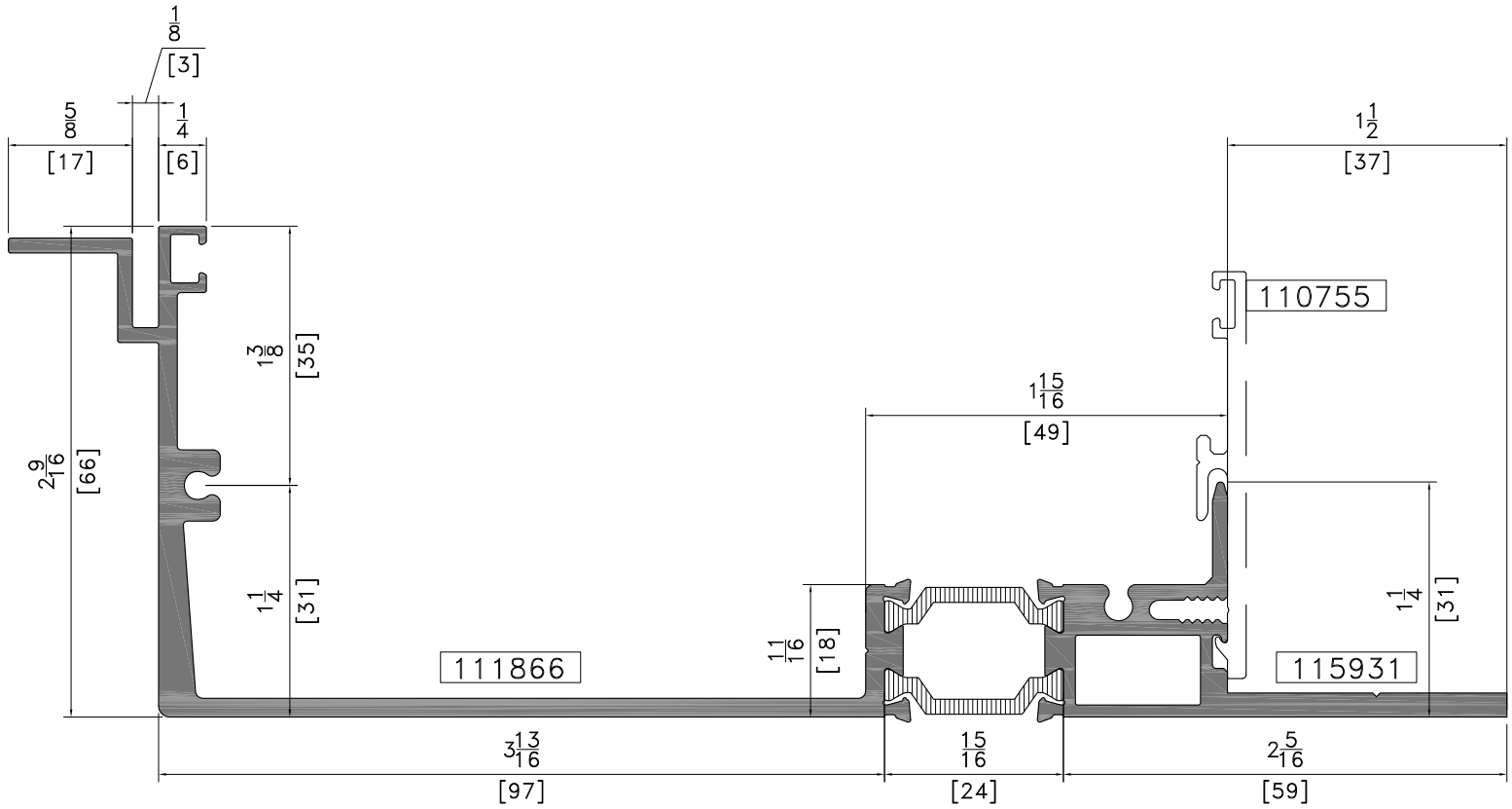
<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- May/07/14</b>
<b>PAGE:</b>	<b>75-10-21</b>



Cataloge No.	755174	
Outer Profile	157774	
Area	1.172 in <sup>2</sup>	756 mm <sup>2</sup>
Weight	1.371 Lb/ft	2.041 Kg/m
Perimeter	17.283 in	439 mm
Exposed	5.630 in	143 mm
Inner Profile	112532	
Area	0.49 in <sup>2</sup>	316 mm <sup>2</sup>
Wieght	0.573 Lb/ft	0.853 Kg/m
Perimeter	7.756 in	197 mm
Exposed	1.654 in	42 mm
Thermal Strut	279700	24 mm
Ix	3.975 in <sup>4</sup>	165.5 cm <sup>4</sup>
Iy	0.467 in <sup>4</sup>	19.4 cm <sup>4</sup>
Sx	1.48 in <sup>3</sup>	24.3 cm <sup>3</sup>
Sy	0.215 in <sup>3</sup>	3.5 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>2- Jul/24/14</b>
<b>PAGE:</b>	<b>75-10-22</b>

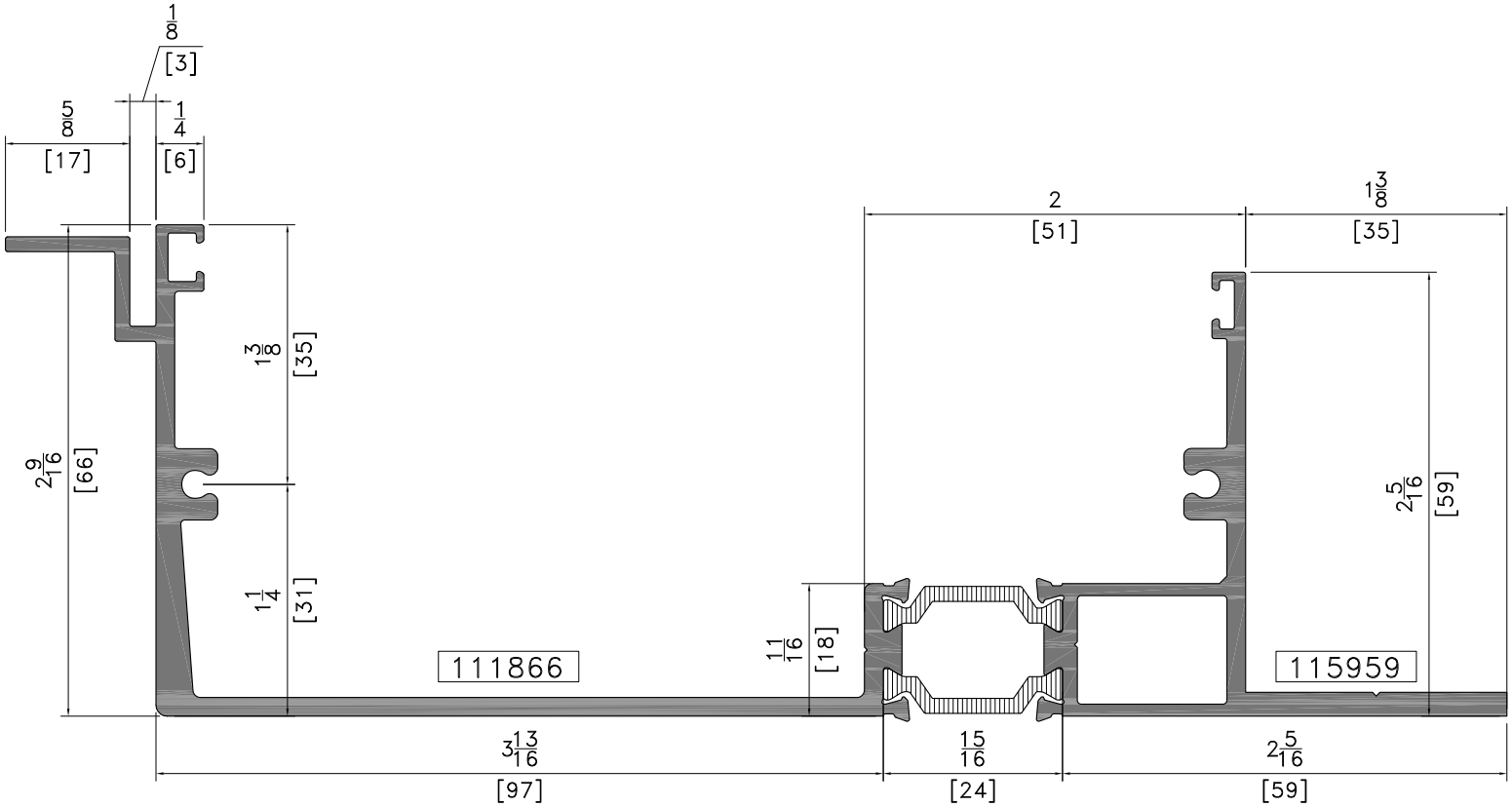
Cataloge No.	756601							
Outer Profile	111866		Inner Profile	115931		Thermal Strut	279700	24 mm
Area	0.958 in <sup>2</sup>	618 mm <sup>2</sup>	Area	0.552 in <sup>2</sup>	356 mm <sup>2</sup>	I <sub>x</sub>	0.713 in <sup>4</sup>	29.7 cm <sup>4</sup>
Weight	1.121 Lb/ft	1.669 Kg/m	Weight	0.646 Lb/ft	0.961 Kg/m	I <sub>y</sub>	7.736 in <sup>4</sup>	322 cm <sup>4</sup>
Perimeter	18.898 in	480 mm	Perimeter	(9.528) in	242 mm	S <sub>x</sub>	0.36 in <sup>3</sup>	5.9 cm <sup>3</sup>
Exposed	0.827 in	21 mm	Exposed	(1.772) in	45 mm	S <sub>y</sub>	1.791 in <sup>3</sup>	29.4 cm <sup>3</sup>



Cataloge No.	110755	
Area	0.253 in <sup>2</sup>	163 mm <sup>2</sup>
Weight	0.296 Lb/ft	0.44 Kg/m
Perimeter	6.102 in	155 mm
Exposed	2.480 in	63 mm
I <sub>x</sub>	0.086 in <sup>4</sup>	3.6 cm <sup>4</sup>
I <sub>y</sub>	0.001 in <sup>4</sup>	0.04 cm <sup>4</sup>
S <sub>x</sub>	0.081 in <sup>3</sup>	1.3 cm <sup>3</sup>
S <sub>y</sub>	0.006 in <sup>3</sup>	0.1 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>2- Jun/19/14</b>
<b>PAGE:</b>	<b>75-10-27</b>

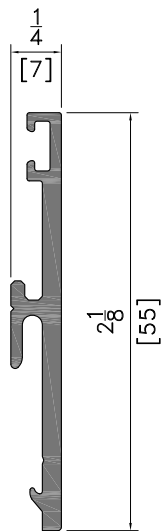
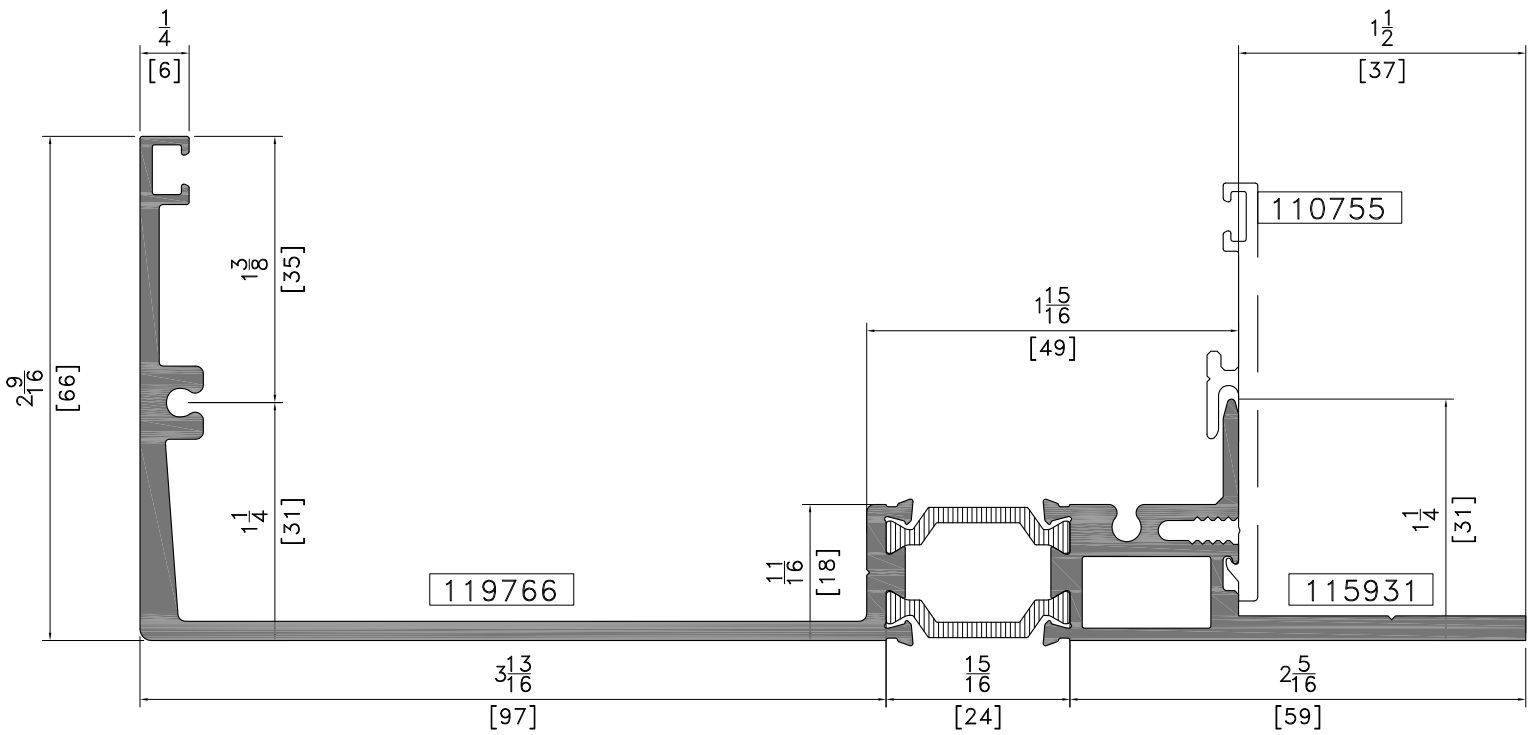
Cataloge No.	756602							
Outer Profile	111866		Inner Profile	115959		Thermal Strut	279700	24 mm
Area	0.958 in <sup>2</sup>	618 mm <sup>2</sup>	Area	0.665 in <sup>2</sup>	429 mm <sup>2</sup>	I <sub>x</sub>	0.855 in <sup>4</sup>	35.6 cm <sup>4</sup>
Weight	1.121 Lb/ft	1.669 Kg/m	Weight	0.778 Lb/ft	1.158 Kg/m	I <sub>y</sub>	8.648 in <sup>4</sup>	359.9 cm <sup>4</sup>
Perimeter	18.898 in	480 mm	Perimeter	11.654 in	296 mm	S <sub>x</sub>	0.458 in <sup>3</sup>	7.5 cm <sup>3</sup>
Exposed	0.827 in	21 mm	Exposed	3.976 in	101 mm	S <sub>y</sub>	2.113 in <sup>3</sup>	34.6 cm <sup>3</sup>



SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	2- Jun/19/14
PAGE:	75-10-28



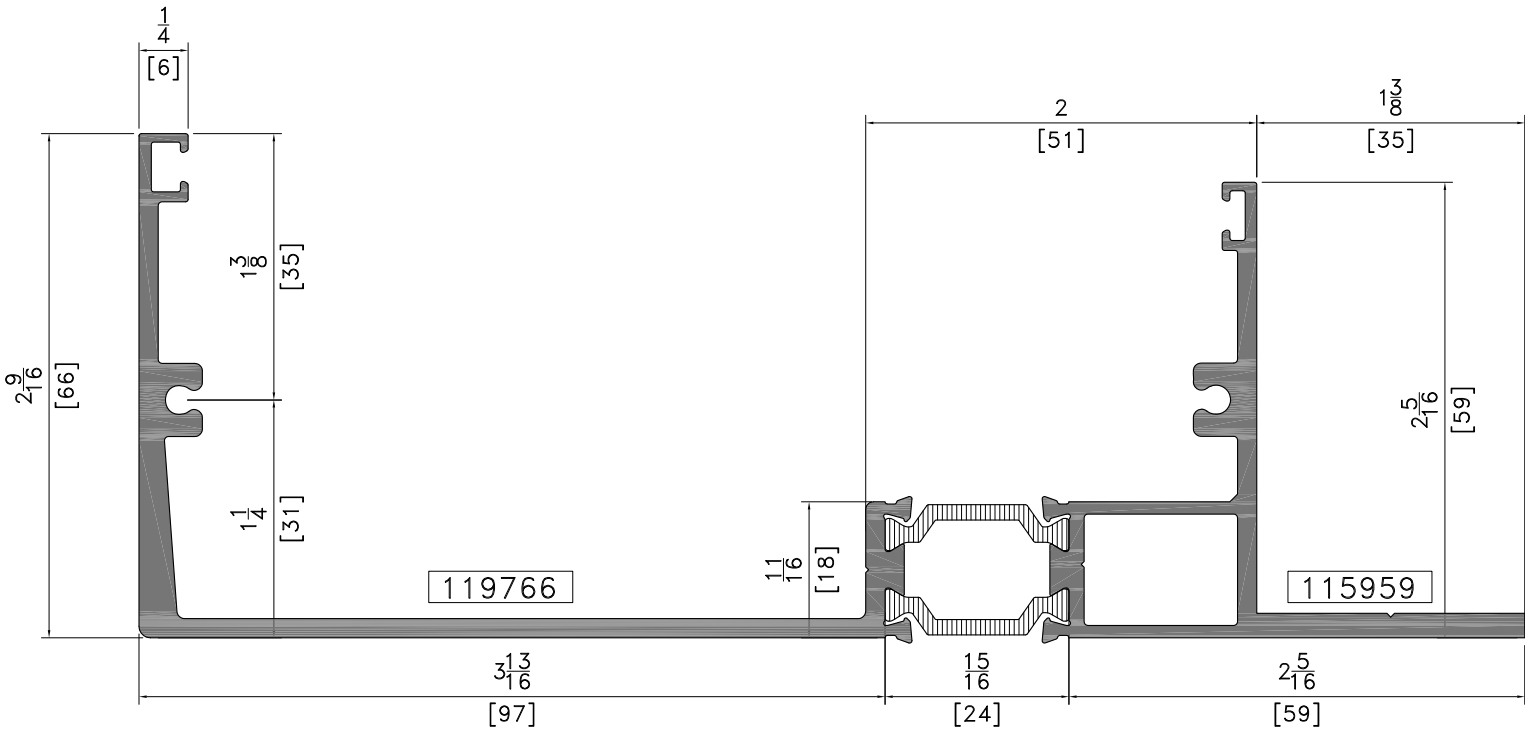
Cataloge No.	756603						
Outer Profile	119766		Inner Profile	115931		Thermal Strut	279700 24 mm
Area	0.858 in <sup>2</sup>	553.5 mm <sup>2</sup>	Area	0.552 in <sup>2</sup>	356 mm <sup>2</sup>	I <sub>x</sub>	0.439 in <sup>4</sup> 18.3 cm <sup>4</sup>
Weight	1.004 Lb/ft	1.494 Kg/m	Weight	0.646 Lb/ft	0.961 Kg/m	I <sub>y</sub>	6.853 in <sup>4</sup> 285.2 cm <sup>4</sup>
Perimeter	16.417 in	417 mm	Perimeter	(9.528) in	242 mm	S <sub>x</sub>	0.209 in <sup>3</sup> 3.4 cm <sup>3</sup>
Exposed	2.953 in	75 mm	Exposed	(1.772) in	45 mm	S <sub>y</sub>	1.672 in <sup>3</sup> 27.4 cm <sup>3</sup>



Cataloge No.	110755	
Area	0.253 in <sup>2</sup>	163 mm <sup>2</sup>
Weight	0.296 Lb/ft	0.44 Kg/m
Perimeter	6.102 in	155 mm
Exposed	2.480 in	63 mm
I <sub>x</sub>	0.086 in <sup>4</sup>	3.6 cm <sup>4</sup>
I <sub>y</sub>	0.001 in <sup>4</sup>	0.04 cm <sup>4</sup>
S <sub>x</sub>	0.081 in <sup>3</sup>	1.3 cm <sup>3</sup>
S <sub>y</sub>	0.006 in <sup>3</sup>	0.1 cm <sup>3</sup>

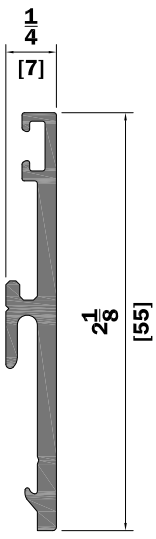
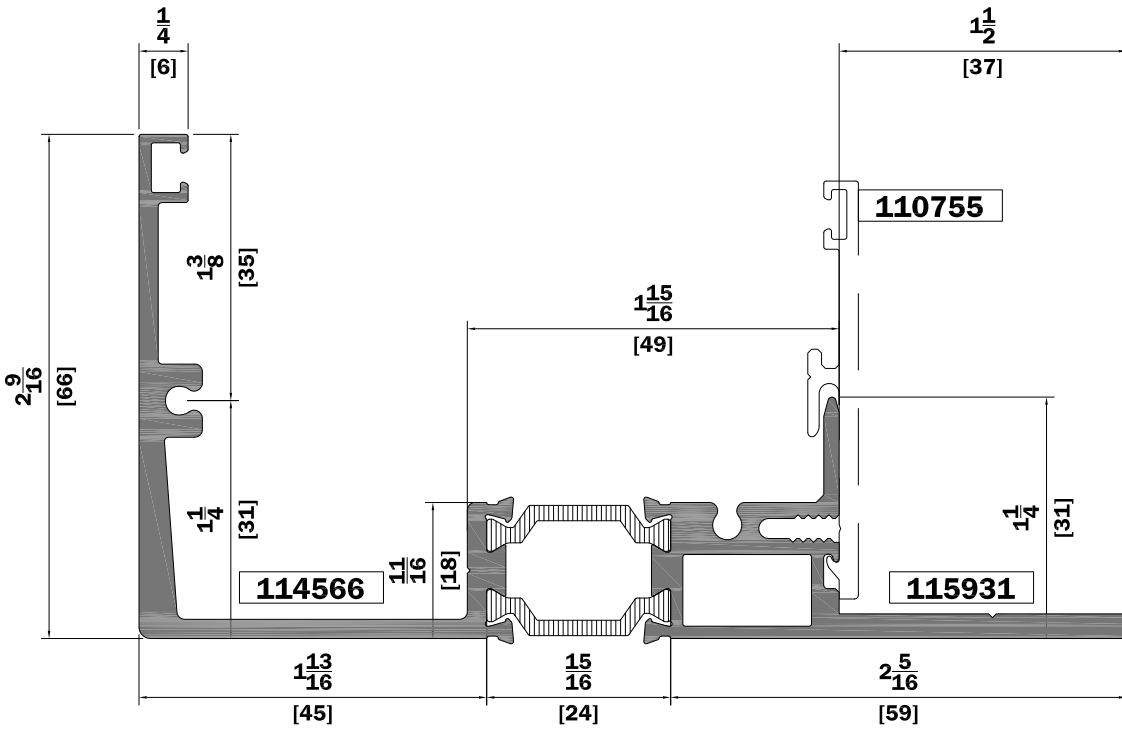
<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>2- Jun/19/14</b>
<b>PAGE:</b>	<b>75-10-29</b>

Cataloge No.	756604							
Outer Profile	119766		Inner Profile	115959		Thermal Strut	279700	24 mm
Area	0.858 in <sup>2</sup>	553.5 mm <sup>2</sup>	Area	0.665 in <sup>2</sup>	429 mm <sup>2</sup>	I <sub>x</sub>	0.617 in <sup>4</sup>	25.7 cm <sup>4</sup>
Weight	1.004 Lb/ft	1.494 Kg/m	Weight	0.778 Lb/ft	1.158 Kg/m	I <sub>y</sub>	7.639 in <sup>4</sup>	318 cm <sup>4</sup>
Perimeter	16.417 in	417 mm	Perimeter	11.654 in	296 mm	S <sub>x</sub>	0.313 in <sup>3</sup>	5.1 cm <sup>3</sup>
Exposed	2.953 in	75 mm	Exposed	3.976 in	101 mm	S <sub>y</sub>	1.972 in <sup>3</sup>	32.3 cm <sup>3</sup>



SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	2- Jun/19/14
PAGE:	75-10-30

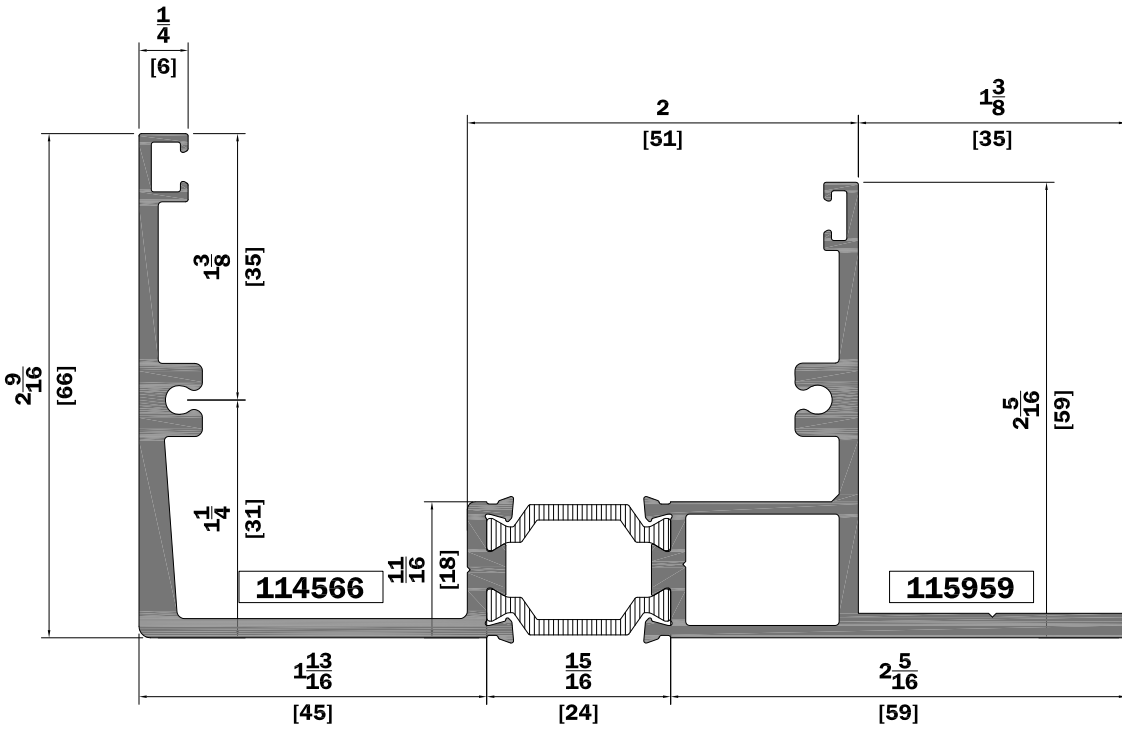
Cataloge No.	756605						
Outer Profile	114566		Inner Profile	115931		Thermal Strut	279700 24 mm
Area	0.656 in <sup>2</sup>	423 mm <sup>2</sup>	Area	0.552 in <sup>2</sup>	356 mm <sup>2</sup>	I <sub>x</sub>	0.401 in <sup>4</sup> 16.7 cm <sup>4</sup>
Weight	0.767 Lb/ft	1.142 Kg/m	Weight	0.646 Lb/ft	0.961 Kg/m	I <sub>y</sub>	2.696 in <sup>4</sup> 112.2 cm <sup>4</sup>
Perimeter	12.323 in	313 mm	Perimeter	(9.528) in	242 mm	S <sub>x</sub>	0.198 in <sup>3</sup> 3.2 cm <sup>3</sup>
Exposed	2.953 in	75 mm	Exposed	(1.772) in	45 mm	S <sub>y</sub>	0.862 in <sup>3</sup> 14.1 cm <sup>3</sup>



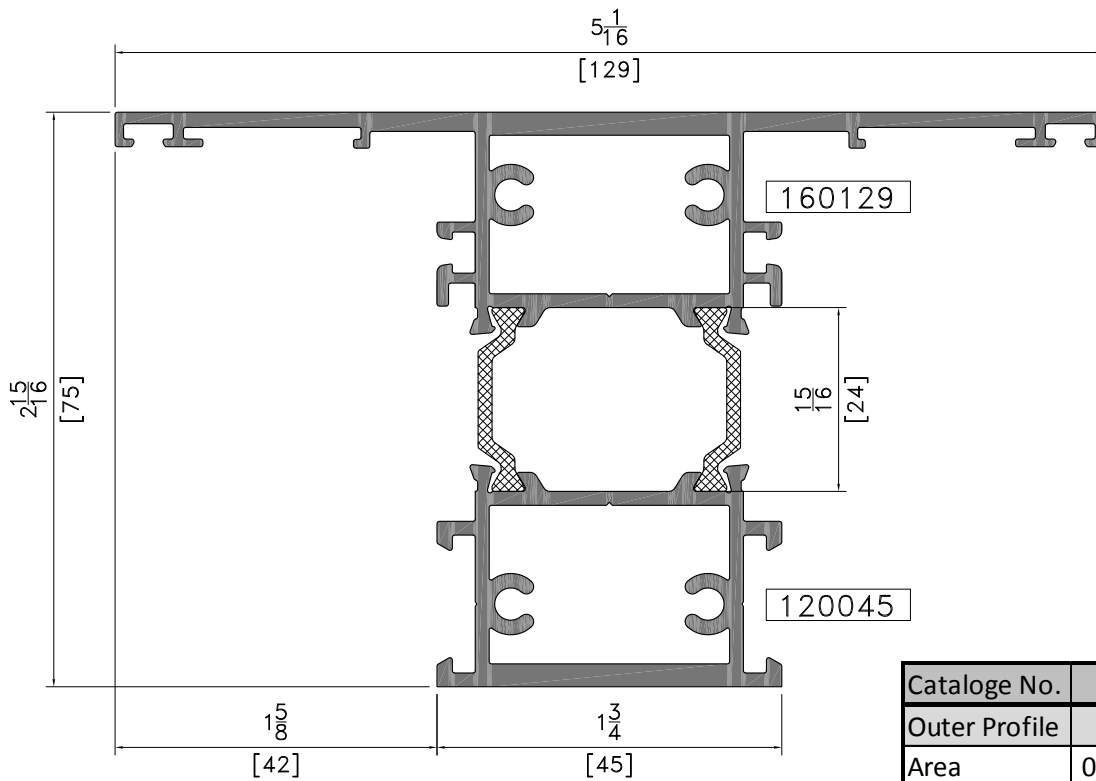
Cataloge No.	110755	
Area	0.253 in <sup>2</sup>	163 mm <sup>2</sup>
Weight	0.296 Lb/ft	0.44 Kg/m
Perimeter	6.102 in	155 mm
Exposed	2.480 in	63 mm
I <sub>x</sub>	0.086 in <sup>4</sup>	3.6 cm <sup>4</sup>
I <sub>y</sub>	0.001 in <sup>4</sup>	0.04 cm <sup>4</sup>
S <sub>x</sub>	0.081 in <sup>3</sup>	1.3 cm <sup>3</sup>
S <sub>y</sub>	0.006 in <sup>3</sup>	0.1 cm <sup>3</sup>

**SYSTEM MODEL:** WS 75  
**CAD FILE :** WS-75 cat.dwg  
**SCALE:** 1:1  
**VER - DATE :** 1- Jun/27/14  
**PAGE:** 75-10-31

Cataloge No.	756606							
Outer Profile	114566		Inner Profile	115959		Thermal Strut	279700	24 mm
Area	0.656 in <sup>2</sup>	423 mm <sup>2</sup>	Area	0.665 in <sup>2</sup>	429 mm <sup>2</sup>	Ix	0.553 in <sup>4</sup>	23 cm <sup>4</sup>
Weight	0.767 Lb/ft	1.142 Kg/m	Wieight	0.778 Lb/ft	1.158 Kg/m	Iy	3.04 in <sup>4</sup>	126.5 cm <sup>4</sup>
Perimeter	12.323 in	313 mm	Perimeter	11.654 in	296 mm	Sx	0.293 in <sup>3</sup>	4.8 cm <sup>3</sup>
Exposed	2.953 in	75 mm	Exposed	3.976 in	101 mm	Sy	1.029 in <sup>3</sup>	16.9 cm <sup>3</sup>

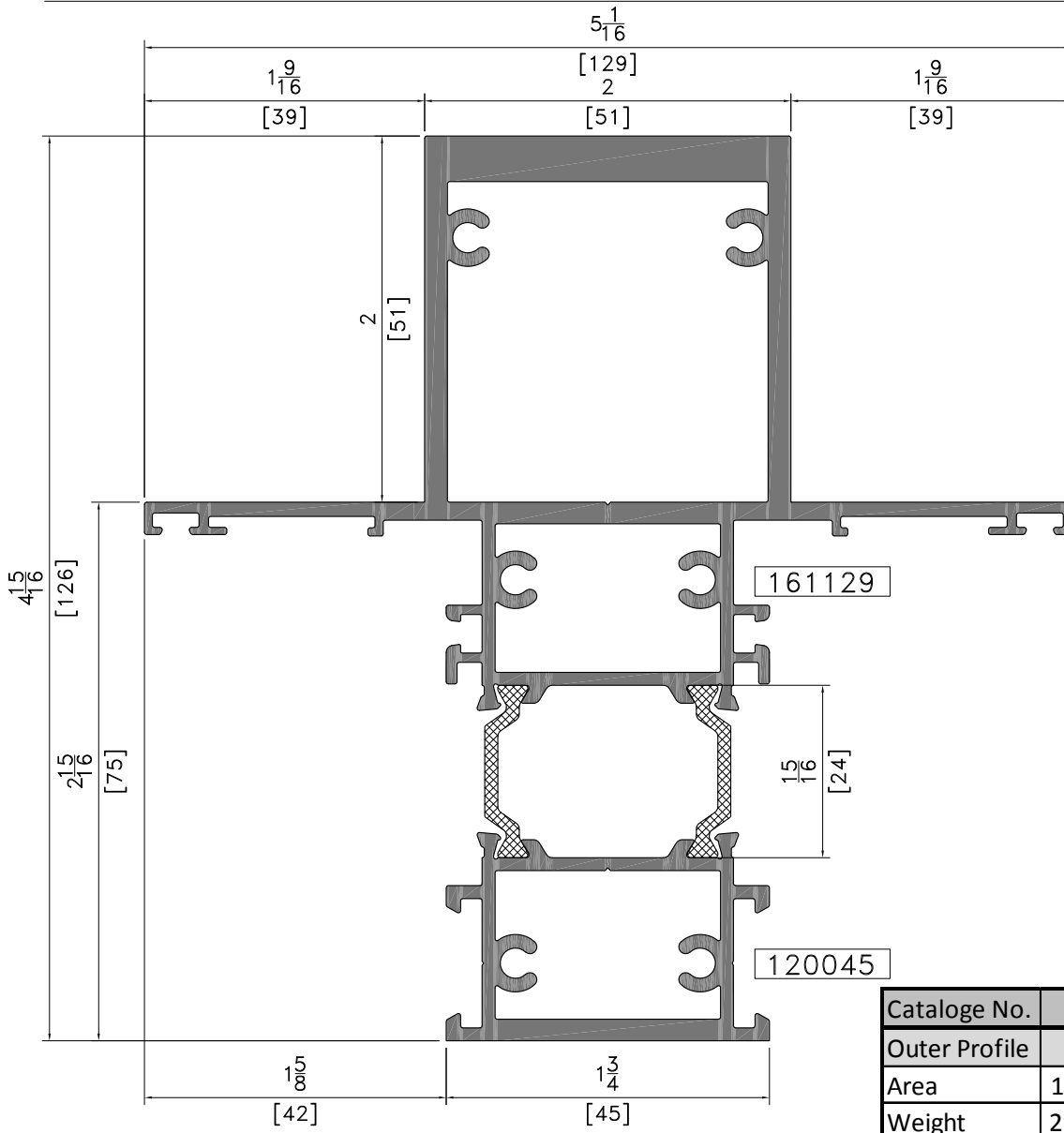


SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	1- Jun/27/14
PAGE:	75-10-32



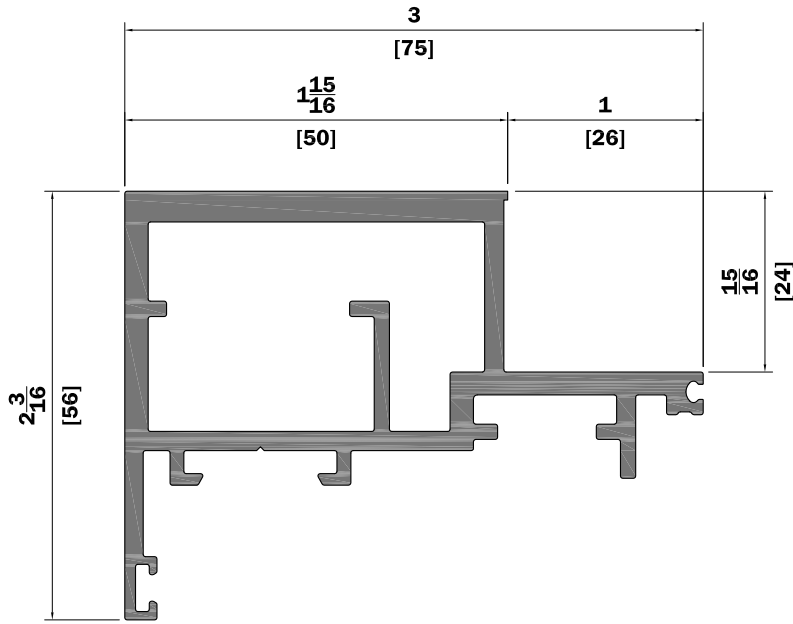
Cataloge No.	754551	
Outer Profile	160129	
Area	0.908 in <sup>2</sup>	586 mm <sup>2</sup>
Weight	1.063 Lb/ft	1.582 Kg/m
Perimeter	17.402 in	442 mm
Exposed	5.591 in	142 mm
Inner Profile	120045	
Area	0.57 in <sup>2</sup>	368 mm <sup>2</sup>
Weight	0.668 Lb/ft	0.994 Kg/m
Perimeter	7.874 in	200 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	1.565 in <sup>4</sup>	65.1 cm <sup>4</sup>
Iy	1.203 in <sup>4</sup>	50.1 cm <sup>4</sup>
Sx	0.892 in <sup>3</sup>	14.6 cm <sup>3</sup>
Sy	0.473 in <sup>3</sup>	7.7 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- May/07/14</b>
<b>PAGE:</b>	<b>75-10-41</b>

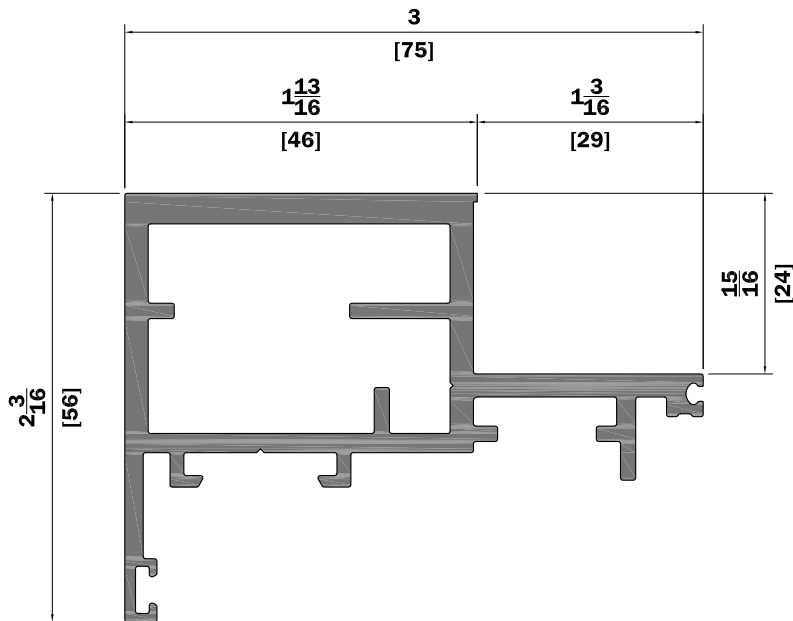


Catalogue No.	754552	
Outer Profile	161129	
Area	1.928 in <sup>2</sup>	1244 mm <sup>2</sup>
Weight	2.256 Lb/ft	3.359 Kg/m
Perimeter	21.417 in	544 mm
Exposed	9.567 in	243 mm
Inner Profile	120045	
Area	0.57 in <sup>2</sup>	368 mm <sup>2</sup>
Weight	0.668 Lb/ft	0.994 Kg/m
Perimeter	7.874 in	200 mm
Exposed	1.969 in	50 mm
Thermal Strut	279700	24 mm
Ix	5.526 in <sup>4</sup>	230 cm <sup>4</sup>
Iy	1.714 in <sup>4</sup>	71.3 cm <sup>4</sup>
Sx	2.011 in <sup>3</sup>	33 cm <sup>3</sup>
Sy	0.672 in <sup>3</sup>	11 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- May/07/14</b>
<b>PAGE:</b>	<b>75-10-42</b>

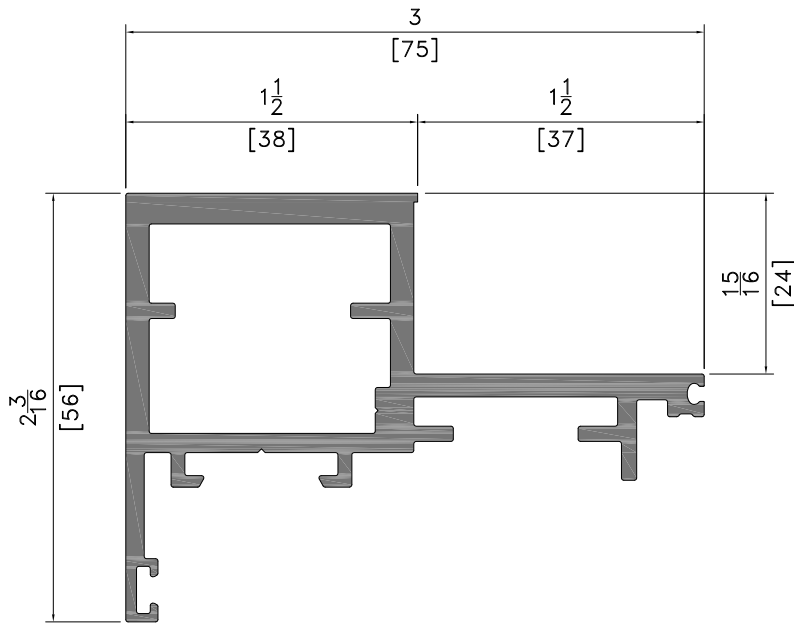


Cataloge No.	210050	
Area	1.135 in <sup>2</sup>	722.5 mm <sup>2</sup>
Weight	1.311 Lb/ft	1.951 Kg/m
Perimeter	13.504 in	343 mm
Exposed	4.449 in	113 mm
Ix	0.341 in <sup>4</sup>	14.2 cm <sup>4</sup>
Iy	0.842 in <sup>4</sup>	35.1 cm <sup>4</sup>
Sx	0.243 in <sup>3</sup>	4 cm <sup>3</sup>
Sy	0.464 in <sup>3</sup>	7.6 cm <sup>3</sup>

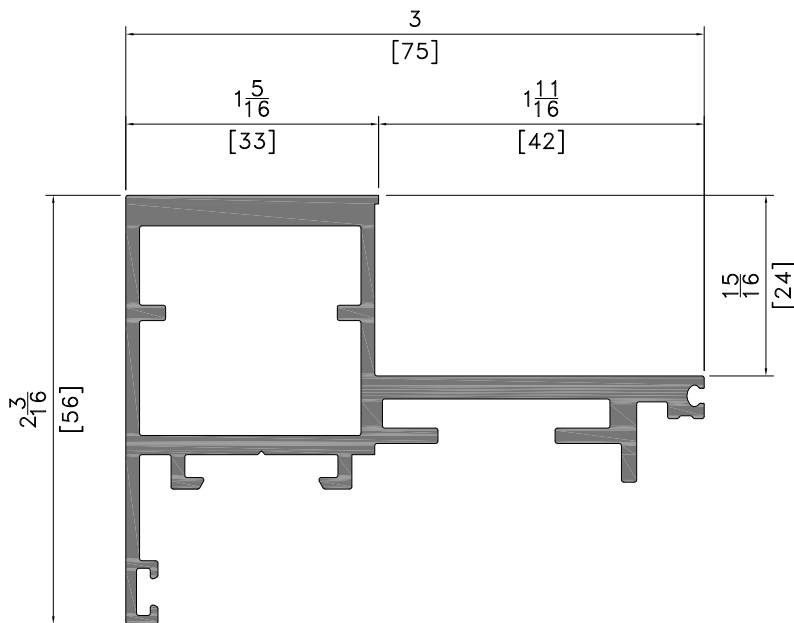


Cataloge No.	210046	
Area	1.111 in <sup>2</sup>	717 mm <sup>2</sup>
Weight	1.301 Lb/ft	1.936 Kg/m
Perimeter	13.504 in	343 mm
Exposed	4.291 in	109 mm
Ix	0.332 in <sup>4</sup>	13.8 cm <sup>4</sup>
Iy	0.825 in <sup>4</sup>	34.3 cm <sup>4</sup>
Sx	0.237 in <sup>3</sup>	3.9 cm <sup>3</sup>
Sy	0.45 in <sup>3</sup>	7.4 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>2- Jul/29/14</b>
<b>PAGE:</b>	<b>75-10-51</b>



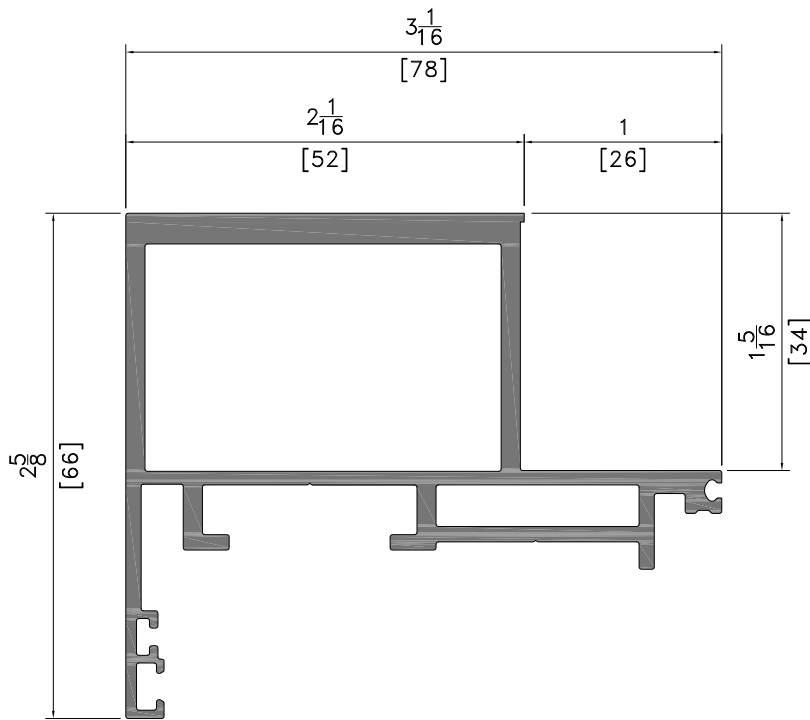
Cataloge No.	210038	
Area	1.060 in <sup>2</sup>	684 mm <sup>2</sup>
Weight	1.241 Lb/ft	1.847 Kg/m
Perimeter	13.858 in	352 mm
Exposed	3.976 in	101 mm
Ix	0.306 in <sup>4</sup>	12.8 cm <sup>4</sup>
Iy	0.794 in <sup>4</sup>	33.0 cm <sup>4</sup>
Sx	0.226 in <sup>3</sup>	3.7 cm <sup>3</sup>
Sy	0.419 in <sup>3</sup>	6.9 cm <sup>3</sup>



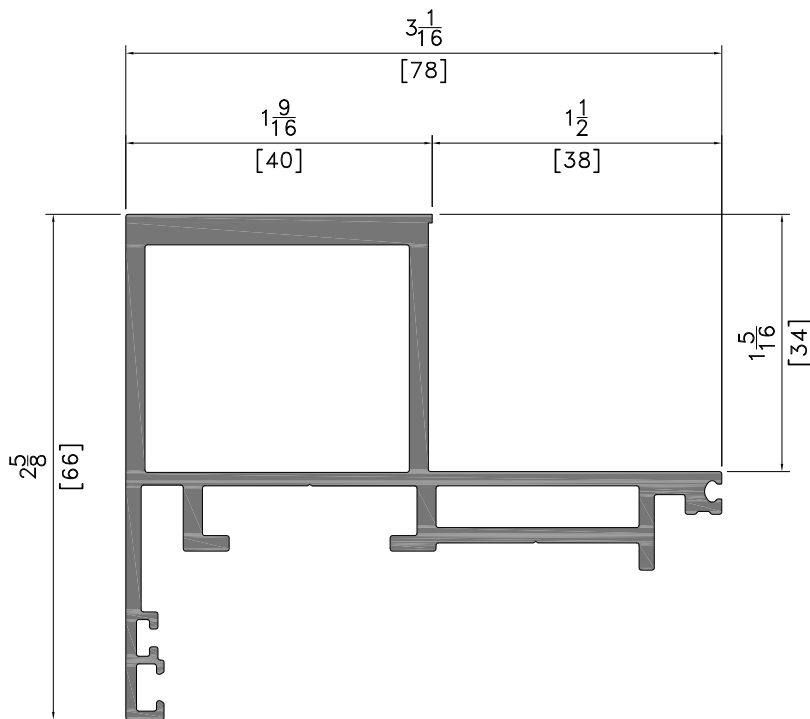
Cataloge No.	210033	
Area	0.919 in <sup>2</sup>	593 mm <sup>2</sup>
Weight	1.076 Lb/ft	1.601 Kg/m
Perimeter	14.213 in	361 mm
Exposed	3.780 in	96 mm
Ix	0.264 in <sup>4</sup>	11.0 cm <sup>4</sup>
Iy	0.734 in <sup>4</sup>	30.5 cm <sup>4</sup>
Sx	0.199 in <sup>3</sup>	3.3 cm <sup>3</sup>
Sy	0.397 in <sup>3</sup>	6.5 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- May/08/14</b>
<b>PAGE:</b>	<b>75-10-52</b>



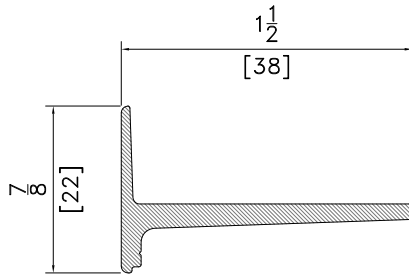


Cataloge No.	216652	
Area	1.102 in <sup>2</sup>	711 mm <sup>2</sup>
Weight	1.290 Lb/ft	1.920 Kg/m
Perimeter	14.843 in	377 mm
Exposed	4.921 in	125 mm
Ix	0.555 in <sup>4</sup>	23.1 cm <sup>4</sup>
Iy	0.940 in <sup>4</sup>	39.1 cm <sup>4</sup>
Sx	0.342 in <sup>3</sup>	5.6 cm <sup>3</sup>
Sy	0.506 in <sup>3</sup>	8.3 cm <sup>3</sup>

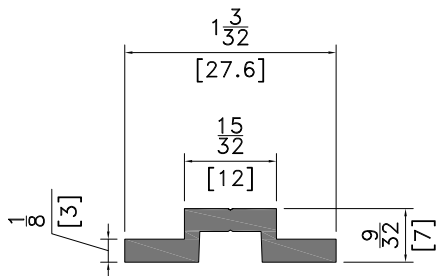


Cataloge No.	216640	
Area	1.029 in <sup>2</sup>	664 mm <sup>2</sup>
Weight	1.204 Lb/ft	1.793 Kg/m
Perimeter	14.843 in	377 mm
Exposed	4.449 in	113 mm
Ix	0.491 in <sup>4</sup>	20.4 cm <sup>4</sup>
Iy	0.845 in <sup>4</sup>	35.2 cm <sup>4</sup>
Sx	0.315 in <sup>3</sup>	5.2 cm <sup>3</sup>
Sy	0.433 in <sup>3</sup>	7.1 cm <sup>3</sup>

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- May/08/14</b>
<b>PAGE:</b>	<b>75-10-53</b>



Cataloge No.	900001	
Area	0.205 in <sup>2</sup>	132 mm <sup>2</sup>
Weight	0.239 Lb/ft	0.356 Kg/m
Perimeter	4.567 in	116 mm
Exposed	0 in	0 mm

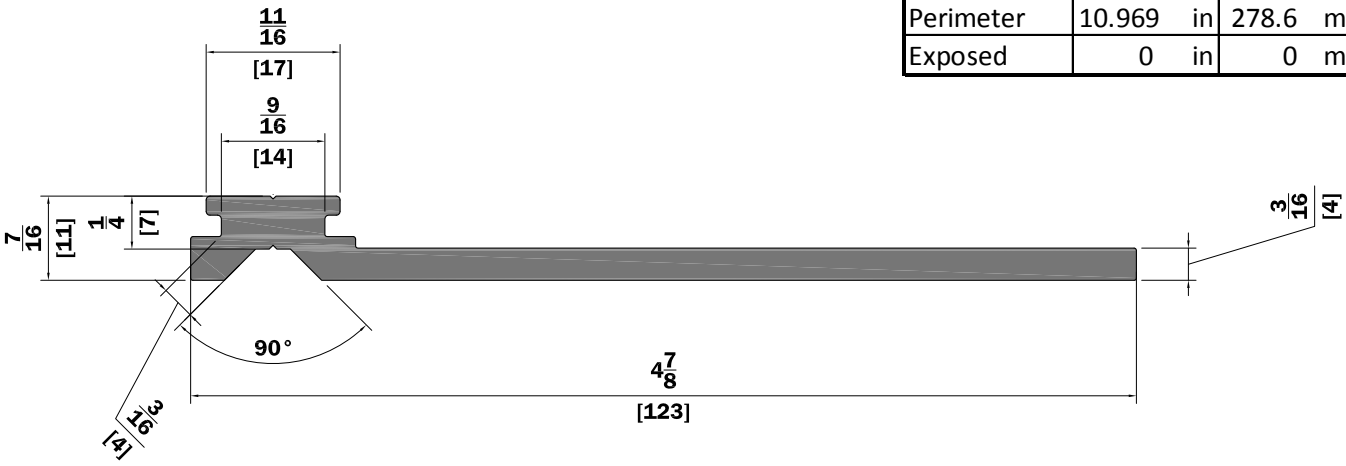


Cataloge No.	900008	
Area	0.152 in <sup>2</sup>	98 mm <sup>2</sup>
Weight	0.178 Lb/ft	0.265 Kg/m
Perimeter	3.071 in	78 mm
Exposed	3.071 in	78 mm

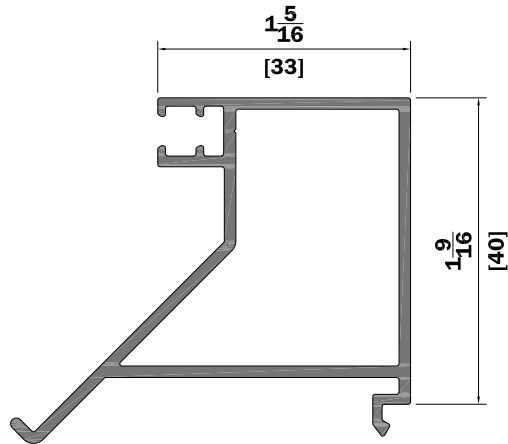
<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- May/08/14</b>
<b>PAGE:</b>	<b>75-10-71</b>

# Anchor Strut

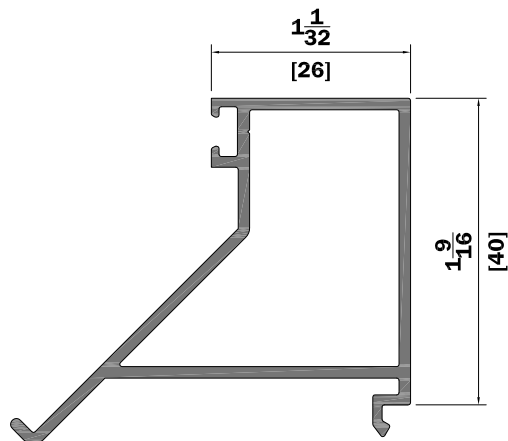
Cataloge No.	900016	
Area	0.925 in <sup>2</sup>	596.6 mm <sup>2</sup>
Weight	1.082 Lb/ft	1.611 Kg/m
Perimeter	10.969 in	278.6 mm
Exposed	0 in	0 mm



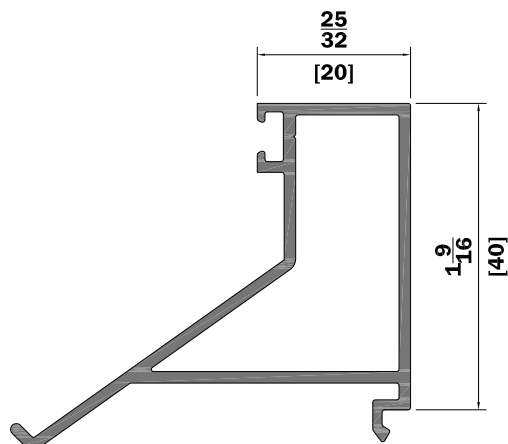
SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	1- May/08/14
PAGE:	75-10-72



Cataloge No.	310033	
Area	0.388 in <sup>2</sup>	250 mm <sup>2</sup>
Weight	0.453 Lb/ft	0.675 Kg/m
Perimeter	8.583 in	218 mm
Exposed	2.480 in	63 mm

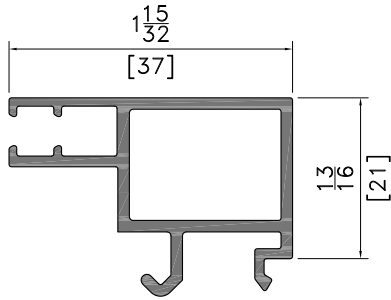


Cataloge No.	310026	
Area	0.398 in <sup>2</sup>	257 mm <sup>2</sup>
Weight	0.466 Lb/ft	0.694 Kg/m
Perimeter	8.425 in	214 mm
Exposed	2.717 in	69 mm

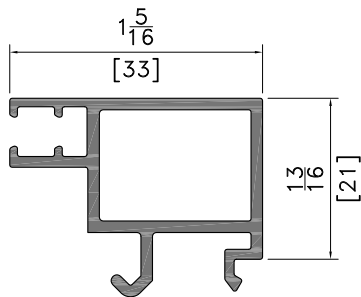


Cataloge No.	310020	
Area	0.388 in <sup>2</sup>	250 mm <sup>2</sup>
Weight	0.453 Lb/ft	0.675 Kg/m
Perimeter	8.386 in	213 mm
Exposed	2.480 in	63 mm

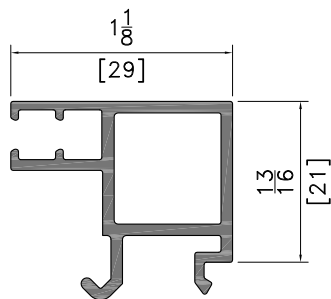
<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- Jun/29/14</b>
<b>PAGE:</b>	<b>75-10-81</b>



Cataloge No.	312137	
Area	0.288 in <sup>2</sup>	186 mm <sup>2</sup>
Weight	0.337 Lb/ft	0.502 Kg/m
Perimeter	7.441 in	189 mm
Exposed	2.402 in	61 mm

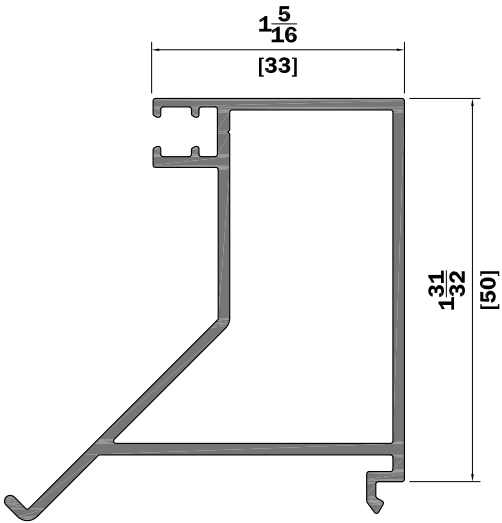


Cataloge No.	312133	
Area	0.273 in <sup>2</sup>	176 mm <sup>2</sup>
Weight	0.319 Lb/ft	0.475 Kg/m
Perimeter	6.811 in	173 mm
Exposed	2.244 in	57 mm



Cataloge No.	310029	
Area	0.388 in <sup>2</sup>	250 mm <sup>2</sup>
Weight	0.453 Lb/ft	0.675 Kg/m
Perimeter	8.386 in	213 mm
Exposed	2.480 in	63 mm

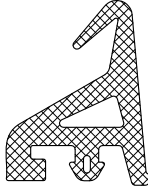




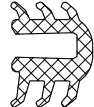
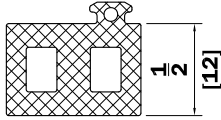
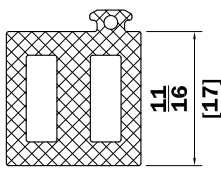
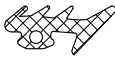
<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- Jun/19/14</b>
<b>PAGE:</b>	<b>75-10-82</b>



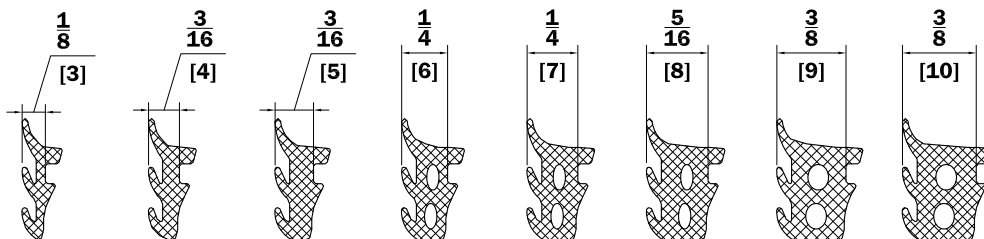
Cataloge No.	315033	
Area	0.471 in <sup>2</sup>	304 mm <sup>2</sup>
Weight	0.551 Lb/ft	0.821 Kg/m
Perimeter	10.197 in	259 mm
Exposed	3.346 in	85 mm

<b>SYSTEM MODEL:</b>	<b>WS 75</b>
<b>CAD FILE :</b>	<b>WS-75 cat.dwg</b>
<b>SCALE:</b>	<b>1:1</b>
<b>VER - DATE :</b>	<b>1- Oct/08/14</b>
<b>PAGE:</b>	<b>75-10-83</b>

# Gaskets

910001   Center Gasket	
912001   Rebate Gasket	
912003   Rebate Gasket	
912005   Rebate Gasket	
912002   Silicon Gasket	
911114   Joint Gasket	
911812   Adapter Gasket	
911817   Adapter Gasket	
911025   Outer Glazing Gasket 2.5mm	

**Inner Glazing Gasket**



913030	913040	913050	913060	913070	913080	913090	913100
--------	--------	--------	--------	--------	--------	--------	--------

SYSTEM MODEL:	WS 75
CAD FILE :	WS-75 cat.dwg
SCALE:	1:1
VER - DATE :	2- Jul/24/14
PAGE:	75-12-11



# Hardware

**KEYED HANDLE 3 POSITIONS**
**901149**
**Functions**

Specific cremone for operating GIESSE tilt-and-turn mechanisms, in logic version.

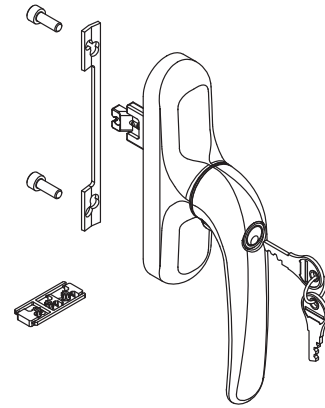
The key provided allows the user to select only bottom-hung opening of the window but not complete opening (possible only when in actual possession of the key).

**Finish**

Natural, painted in RAL 9010, silver, white, pearl white, black.

**Packaging**

Box of 10 pieces


**Technical Features**

90° and 180° rotation of the handle with snap positioning.

Depending on the position of the key with respect to the cylinder, the following are possible:

- 1, to block the sash in closed position, blocking the rotation of the handle at 0°.
- 2, to block the rotation of the handle at 90°, allowing bottom-hung closing and opening of the sash, but not complete opening.
- 3, complete rotation of the handle through 0°, 90° and 180°, thus allowing complete opening of the sash. In this case the key cannot be extracted so that, for the user, it is clear that the window is open. In fact the key can be extracted only when the handle is in closed or bottom-hung position (0° or 90°).

The use of high quality die-cast materials, together with the GIESSE painting system, guarantees excellent mechanical performance, colour uniformity and strong resistance to abrasion.

The cremone is designed for fitting on working C/C distances of 104 mm and 92 mm.

Each article in the PRIMA line is packaged singly in a special polystyrene box protecting it from the phase of installation until it is used.

**Parts**

Instructions sheet

**Materials**

Die-cast aluminium handle

Case, slide and dummy control device in die-cast zamak GS SILVER PLUS

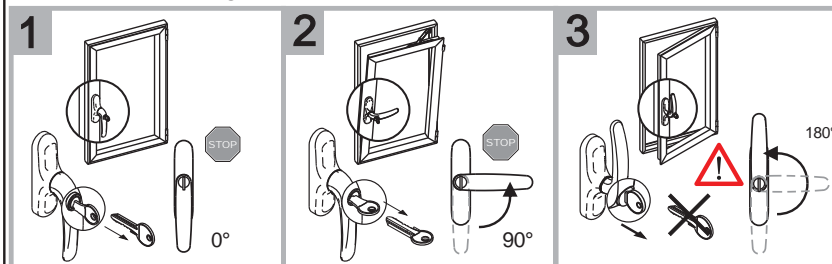
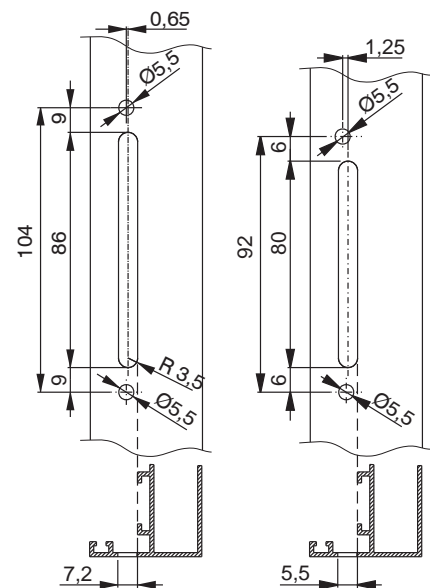
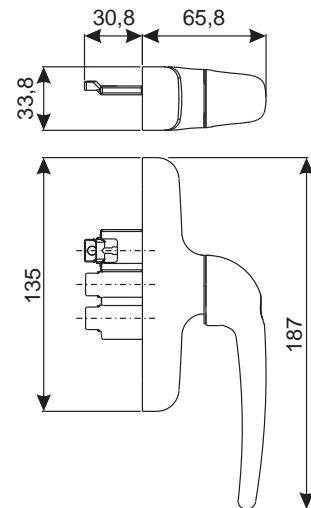
White galvanised zamak gear

Internal sheath and base in hostaform

Nickel-plated brass key and cylinder

Steel spring

Stainless steel fixing plate and screws


**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-11**

## KEYED HANDLE 3 POSITIONS 902486

### Functions

PRIMA window handle, for operating GIESSE M90 and M180 mechanisms.

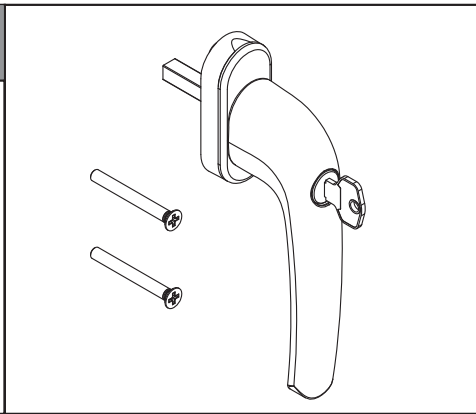
The handle is fitted with a security mechanism which prevents it being turned from outside.

### Finish

Painted in RAL colours and the exclusive GIESSE cremone colours (dark brown, bronze, silver)

### Packaging

Box of 5 pieces



### Technical Features

The pull handle is made of die-cast aluminium and blends in seamlessly with the PRIMA cremone line.

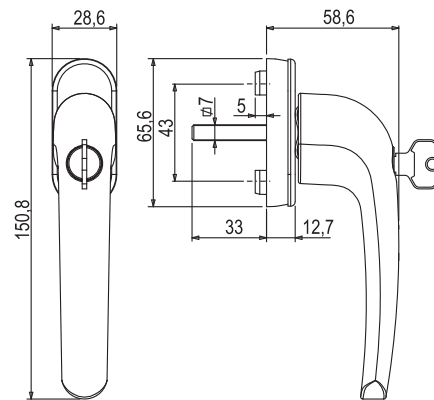
Equipped with a positioner with stops at 90° and 180° and with a square pin which transmits the movement, cross-section 7 mm and length 45 mm.

Turning the key 180° locks the handle (1).

Releasing the key allows you to open the window in the tilt position to 90° or close the window to 0° (see 2).

Turn the key to 45° and the handle to 180° to open the window. If the handle is turned back to 90°, the handle returns to the secure position, preventing rotation to 180° which completely opens the window (3).

Window handles requests in special finish, ordered by special orders, will have the washer plastic in black resin.



### Materials

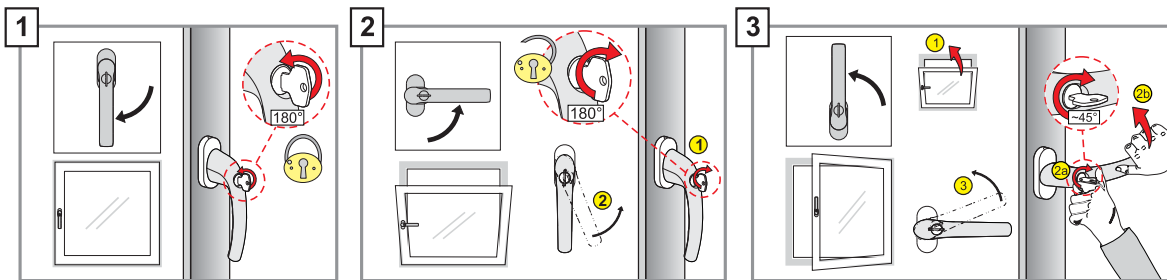
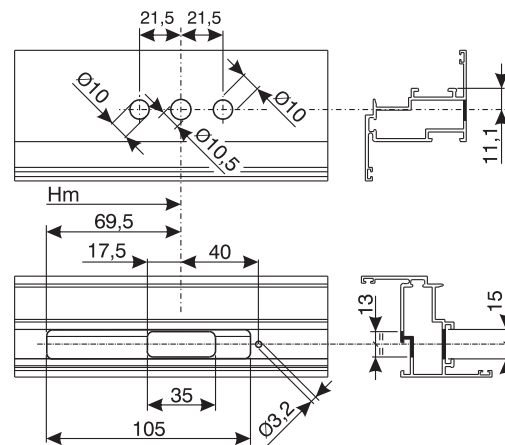
Aluminium handle

Galvanized Zamak rotor

Lid in aluminium

Washer plastic resin

Galvanized steel pin and screws



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-12**

## SINGLE DIRECTIONAL INTERNAL DEVICE 901029

### Functions

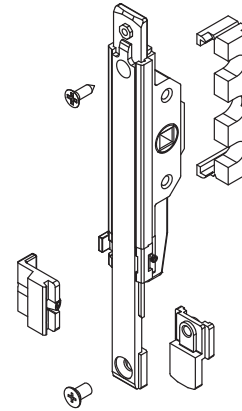
The M180 single-directional device is fitted inside profile tubing, for movement of GIESSE tilting sash lock mechanisms. Dummy control device for left or right hand use.

### Finish

Base finish

### Packaging

Box of ? pair



### Technical Features

Dummy control device for left or right hand use.

The mechanism is located on the exterior of the handle body.

For applications with GIESSE tilting sash, account for a different connection rod size as shown in the assembly instructions.

Ideal for aluminium/wood series, with handle in place of cremone bolt used with tilting sash.

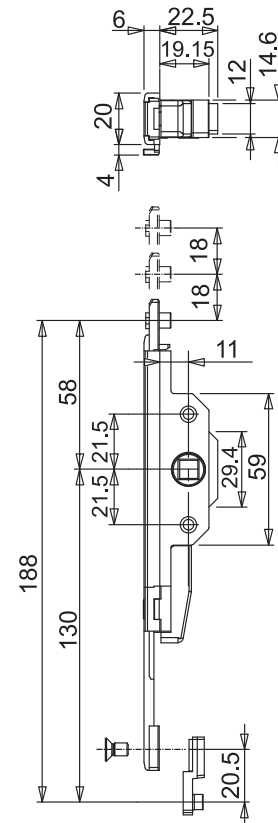
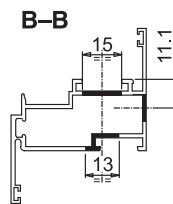
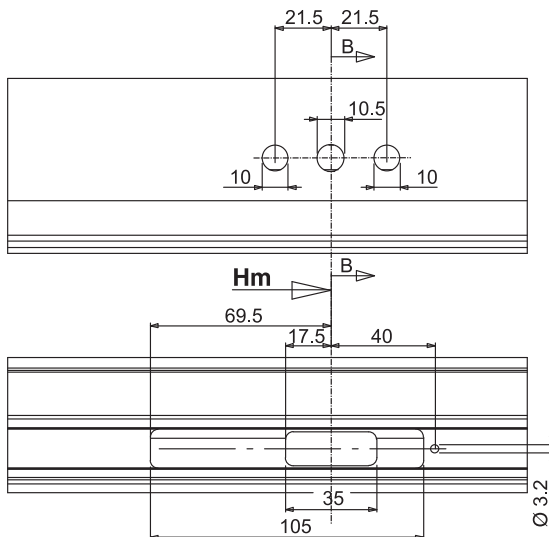
### Parts

Instructions sheet

### Materials

Case, cover, dummy control keepcrack and gears made from GS SILVER PLUS Zamak

Stainless steel dummy control spring



For further information, refer to the assembly instructions in the package.

**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 1 - Jun/08/14**

**PAGE: 75-13-21**

**SAFETY HORIZONTAL WING MECHANISM 901175**
**Functions**

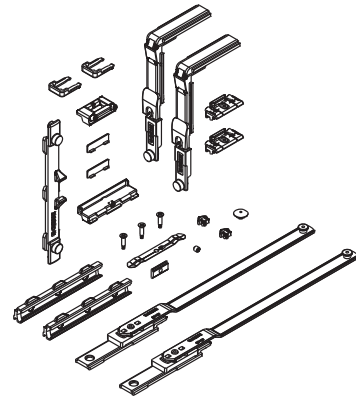
Hardware kit for creating the security casement sash (with cremone at 0° sash closed, at 90° limited opening and 180° full opening) with horizontal closing.

**Finish**

Base finish

**Packaging**

Box of 10 pieces


**Tecnical Features**

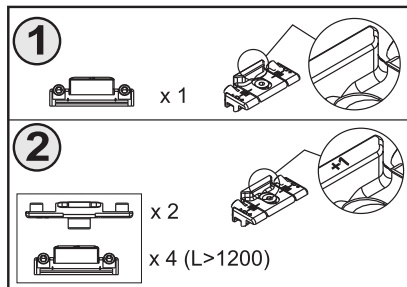
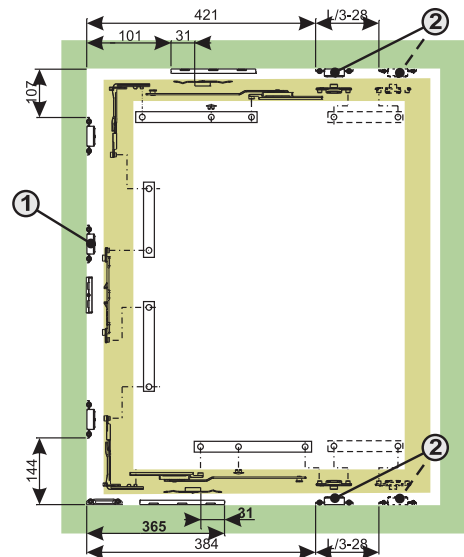
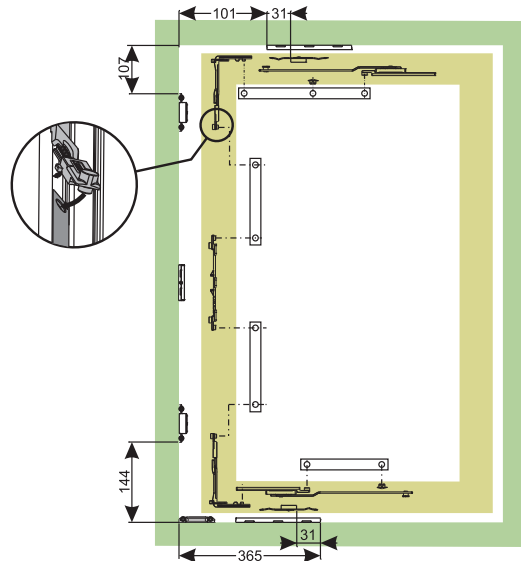
The kit comprises the following components: cremone drive rod (1 pc), incorrect operation safety striker (1 pc), corner drive (2 pcs), locking striker (2 pcs), arm (2 pcs), lifting striker (1 pc). The Prima Key Capture cremone (art. 01149) and Flash or Bridge 2 hinges are to be added to the kit. The security sash kit allows limited sash opening (from 130 to 260 mm depending on arm adjustment) with cremone at 90°, and full opening with cremone turned 180°. Using Prima Key cremones it is possible to inhibit full opening of the sash, maintaining only security opening, and allows full opening only by authorised persons who have the key.

**Parts**

Instructions sheet

**Materials**

Zamak strikers, connecting components, safety device striker, cremone driver, slider, stop plate, corner drives and clip  
Nylon striker and lifting component, safety device spacers, adapting spacers and holding plug



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-22**

## BRIDGE 3 PARTS HINGE 900600

### Applications

Two-handed comb hinge, for normal use on aluminium central gasket windows and light doors.

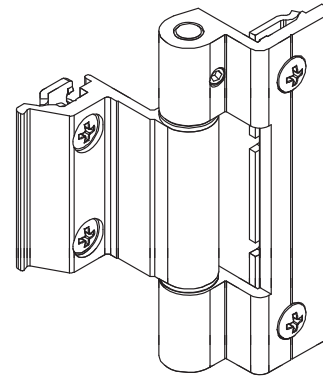
It is suitable for installation where there is extra crosswise stress on the pin axis (e.g. on very wide, bottom-hung or projecting frames).

### Finishes

Unfinished, anodised silver and bronze with tumbling, Elettrogiesse 5/9, Painted in RAL colours.

### Package

Box containing 50 pieces



### Technical characteristics

The BRIDGE 2 hinge is supplied pre-assembled (but without the fixing plates for the frame). The special features of the hinge and plate enable quick and easy fitting on ready-assembled frames and perfect hinge positioning when the screws are being secured.

BRIDGE 2 has a removable pin, locked in place by a 2.5 mm Allen grub screw, accessible only when the wing is open (burglar-proof). This means that the wing can be separated from the frame without having to disassemble the hinge.

### Parts supplied

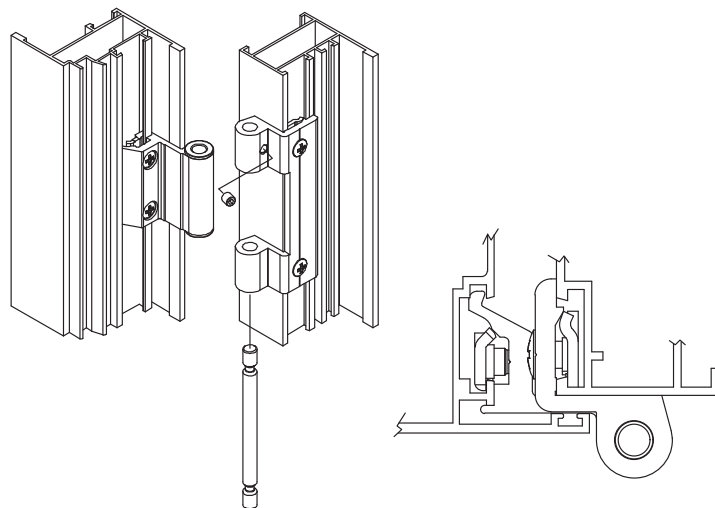
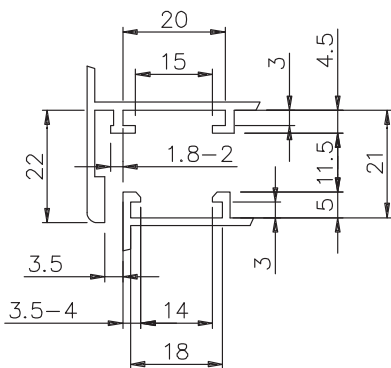
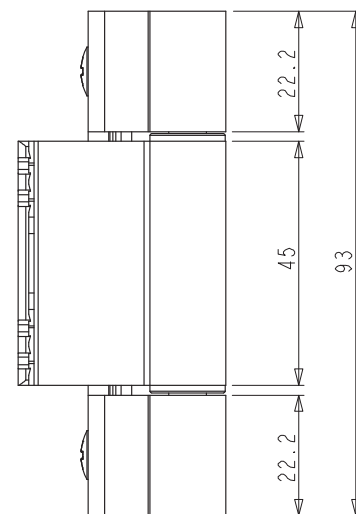
- 2 fixing plates
- 2 cross-head M 5 x 10 screws
- 2 cross-head head M 5 x 8 screws
- 1 M 5 x 6 grub screw

### Materials

Extruded aluminium hinge  
Stainless steel pin, screws, grub screw and plates  
Hostaform bushes

### Capacity

- 2 BRIDGE 2 hinges: 90 kg
  - 3 BRIDGE 2 hinges: 100 kg
- Considering frames with a height of 2000 mm and width of 1500 mm.



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-23**

**FUTURA T/T HINGES 3D 130 904711**
**Functions**

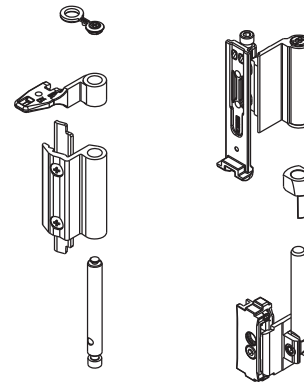
Hinge set (top and bottom) necessary for preparing a Futura 3D 130 tilt and turn.

**Finish**

Paint finish in RAL colours

**Packaging**

Box of 10 pieces



The Futura 3D 130 tilt and turn **is classified for 130 kg**. Windows weighing up to 140 kg can in any case be prepared. It is available in two versions: conventional **FUTURA 3D 130** and Logica **FUTURA 3D 130 lgc**. For the minimum and maximum dimensions possible and the glass to be used, refer to the tables given opposite.

**Maximum wing weight (aluminium and glass)**

2500	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
2400	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
2300	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
2200	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
2100	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
2000	140	140	140	140	140	140	140	140	140	140	140	140	140	140	140
1900	140	140	140	140	140	140	140	140	140	140	140	140	140	139	
1800	140	140	140	140	140	140	140	140	140	140	140	140	140	132	
1700	140	140	140	140	140	140	140	140	140	140	140	133	125		
1600	140	140	140	140	140	140	140	140	140	140	134	126	118		
1500	140	140	140	140	140	140	140	140	140	135	126	118	111		
1400	140	140	140	140	140	140	140	140	137	127	118	111	104		
1300	140	140	140	140	140	140	140	138	127	118	110	104	97		
1200	140	140	140	140	140	140	140	128	118	110	103	96			
1100	140	140	140	140	140	140	129	118	109	101	95				
1000	140	140	140	140	140	130	118	108	100	93					
900	140	140	140	140	131	118	108	99	91						
800	140	140	140	133	118	106	97	89							
700	140	140	135	118	105	95	86								
600	140	138	118	104	92	83									
390	500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700		

**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-24**

**FUTURA T/T HINGES 3D 150Kg(330 Lb) 904712**
**Functions**

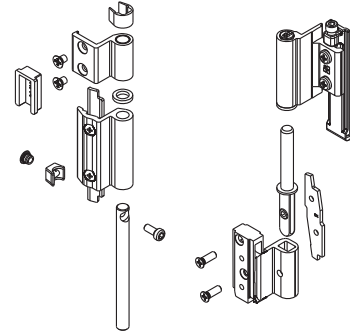
Hinges assembly (top and bottom) necessary for the realization of tilt-and-turn FUTURA 3D 150 HP opening aluminium windows.

**Finish**

Painted in RAL colours

**Packaging**

Box of 10 pieces



The FUTURA 3D 150 HP tilt and turn **is classified for 150 kg.**

It is available in two versions: conventional **FUTURA 3D 150 HP** and Logica **FUTURA 3D 150 HP lgc.**

For the minimum and maximum dimensions possible and the glass to be used, refer to the tables given opposite.

**Maximum wing weight (aluminium and glass)**

2500	150	150	150	150	150	150	150	150	150	150	150	150	150	150
2400	150	150	150	150	150	150	150	150	150	150	150	150	150	150
2300	150	150	150	150	150	150	150	150	150	150	150	150	150	150
2200	150	150	150	150	150	150	150	150	150	150	150	150	150	150
2100	150	150	150	150	150	150	150	150	150	150	150	150	150	150
2000	150	150	150	150	150	150	150	150	150	150	150	150	150	150
1900	150	150	150	150	150	150	150	150	150	150	150	150	150	150
1800	150	150	150	150	150	150	150	150	150	150	150	150	150	148
1700	150	150	150	150	150	150	150	150	150	150	150	148	140	
1600	150	150	150	150	150	150	150	150	150	150	149	140	131	
1500	150	150	150	150	150	150	150	150	149	140	131	123		
1400	150	150	150	150	150	150	150	150	140	130	122	115		
1300	150	150	150	150	150	150	150	150	140	130	121	113		
1200	150	150	150	150	150	150	150	140	129	120	112			
1100	150	150	150	150	150	150	140	128	118	110				
1000	150	150	150	150	150	140	127	116	107					
900	150	150	150	150	140	126	114	105						
800	150	150	150	140	124	112	101							
700	150	150	140	122	109	98								
600		500	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700
	380													

**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-25**



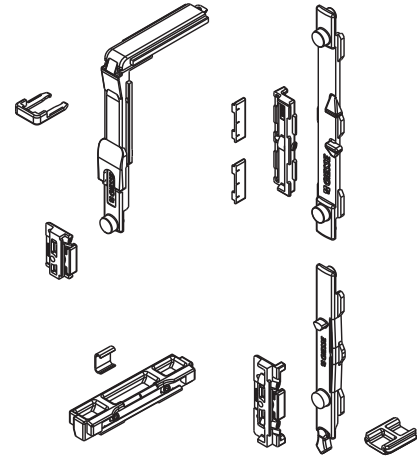
**TILT&TURN MECHANISM** **904704**

**Functions**  
 This mechanism is for narrow tilt&turn window for Cremona handle, that provide a locking point on the handle side and the head.

**This kit comprises the following components:**  
 Cremona drive rod (1pc.)  
 Tilt rod (1pc.)  
 Corner drive (1pc.)  
 Locking point (2pcs.)

**Finish**  
 Base finish.

**Packaging**  
 Box of 10 pieces



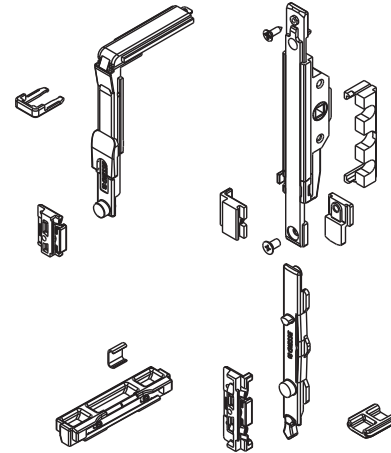
**TILT&TURN MECHANISM** **904705**

**Functions**  
 This mechanism is for narrow tilt&turn window with M180 mechanism, that provide a locking point on the handle side and the head.

**This kit comprises the following components:**  
 M-180 mechanism (1pc.)  
 Tilt rod (1pc.)  
 Corner drive (1pc.)  
 Locking point (2pcs.)

**Finish**  
 Base finish.

**Packaging**  
 Box of 10 pieces



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-31**

**TILT&TURN MECHANISM**
**904706**
**Functions**

This mechanism is for wide tilt&turn window for Cremone handle, that provide a locking point on the handle side, head, and sill.

**This kit comprises the following components:**

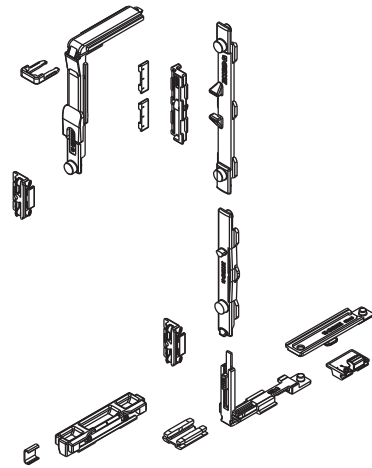
- Cremone drive rod (1pc.)
- Tilt rod (1pc.)
- Corner drive 904019 (1pc.)
- Corner drive 904024 (1pc.)
- Locking point (2pcs.)

**Finish**

Base finish.

**Packaging**

Box of 10 pieces


**TILT&TURN MECHANISM**
**904707**
**Functions**

This mechanism is for wide tilt&turn window with M180 mechanism, that provide a locking point on the handle side, head, and sill.

**This kit comprises the following components:**

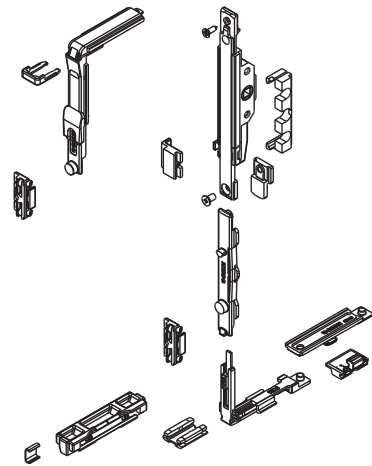
- M-180 mechanism (1pc.)
- Tilt rod (1pc.)
- Corner drive 904019 (1pc.)
- Corner drive 904024 (1pc.)
- Locking point (2pcs.)

**Finish**

Base finish.

**Packaging**

Box of 10 pieces


**SYSTEM MODEL: WS 75**
**CAD FILE : WS-75 cat.dwg**
**SCALE : 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE : 75-13-32**

**ARM FUTURA 3D 130Kg (286 Lb)****904200****Functions**

Arm for tilt and turn narrow window W=390mm to 550mm (15.5" to 21.6")

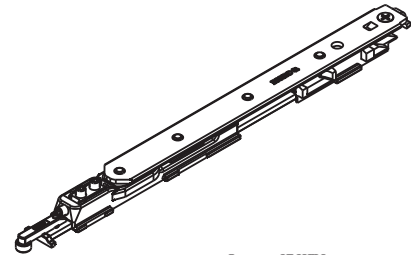
This arm is working with 904704 mechanism.

**Finish**

Base finish.

**Packaging**

Box of 10 pieces

**ARM FUTURA 3D 130Kg (286 Lb)****904201****Functions**

Arm for tilt and turn narrow window W=551mm to 1700mm (21.6" to 70")

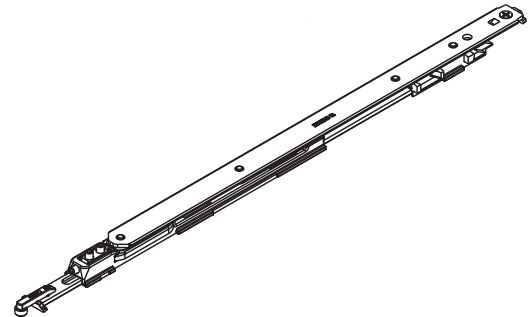
This arm is working with 904706 mechanism.

**Finish**

Base finish.

**Packaging**

Box of 10 pieces

**SYSTEM MODEL: WS 75****CAD FILE : WS-75 cat.dwg****SCALE : 1:1****VER - DATE: 2 - May/08/14****PAGE : 75-13-35**

**ARM FUTURA LOGICA 3D 130Kg (286 Lb) 904202****Functions**

Arm for tilt and turn narrow window W=390mm to 550mm (15.5" to 21.6")

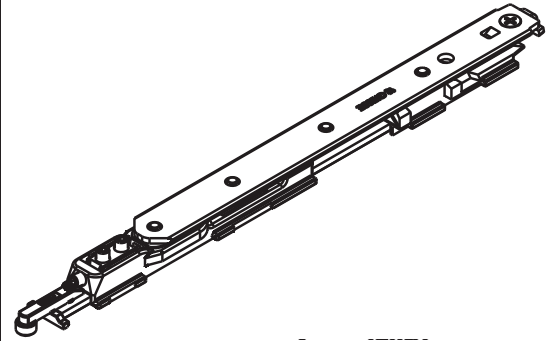
This arm is working with 904705 mechanism.

**Finish**

Base finish.

**Packaging**

Box of 10 pieces

**ARM FUTURA 3D LOGICA 130Kg (286 Lb) 904203****Functions**

Arm for tilt and turn narrow window W=551mm to 1700mm (21.6" to 70")

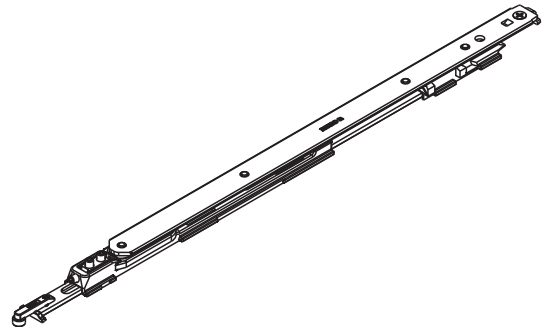
This arm is working with 904707 mechanism.

**Finish**

Base finish.

**Packaging**

Box of 10 pieces

**SYSTEM MODEL: WS 75****CAD FILE: WS-75 cat.dwg****SCALE: 1:1****VER - DATE: 2 - May/08/14****PAGE: 75-13-36**

**ARM T1 130 WITH MICROVENTILATION 904284**
**Functions**

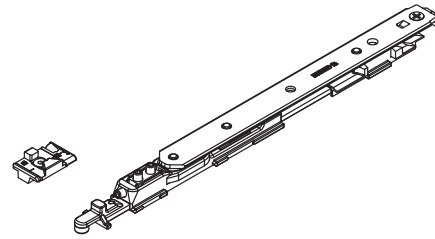
FUTURA 3D 130 T1 tilt-and-turn arm with integrated micro-ventilation.

**Finish**

Base finish

**Packaging**

Box of 10 pieces


**Technical Features**

T1 tilt-and-turn arm with dedicated micro-ventilation pawl and striker.

Operation is extremely simple:

With the cremone at 0° the pawl is released (with the window closed).

With the cremone at 90° the pawl is released and the window can be opened (arm locked).

With the cremone at 135° the pawl is retained by the micro-ventilation striker (arm locked).

With the cremone at 180° the pawl is released and bottom-hung operation is possible (arm released).

For correct operation, use Euro and Prima cremones with positioning notch at 135°.

This system enables adjustable opening (-1.8 mm / +3.6 mm) for compliance with CLASS 1 air permeability per UNI EN 12207:2000

**Parts**

Instructions sheet

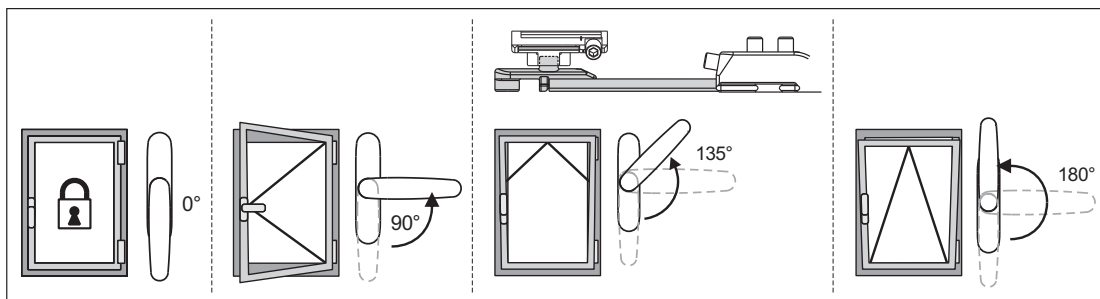
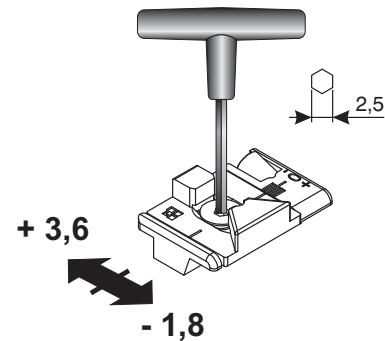
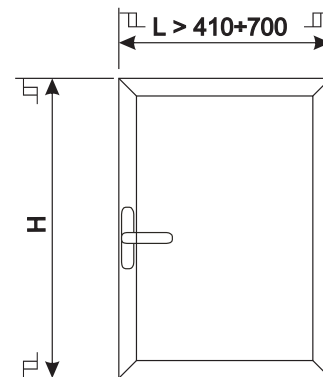
**Materials**

Slotted body, slider and striker in zamak SILVER PLUS GS

Stainless steel arm

Arm for rod aluminium

Screws and grub screws stainless steel


**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-37**

**ARM T2 130 WITH MICROVENTILATION 904285**
**Functions**

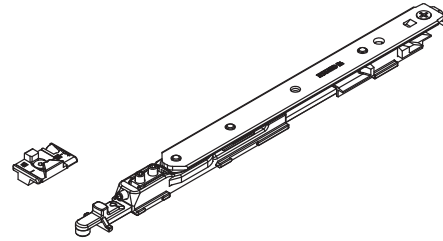
FUTURA 3D 130 T2 tilt-and-turn arm with integrated micro-ventilation.

**Finish**

Base finish

**Packaging**

Box of 10 pieces


**Technical Features**

T2 tilt-and-turn arm with dedicated micro-ventilation pawl and striker.

Operation is extremely simple:

With the cremone at 0° the pawl is released (with the window closed).

With the cremone at 90° the pawl is released and the window can be opened (arm locked).

With the cremone at 135° the pawl is retained by the micro-ventilation striker (arm locked).

With the cremone at 180° the pawl is released and bottom-hung operation is possible (arm released).

For correct operation, use Euro and Prima cremones with positioning notch at 135°.

This system enables adjustable opening (-1.8 mm / +3.6 mm) for compliance with CLASS 1 air permeability per UNI EN 12207:2000

**Parts**

Instructions sheet

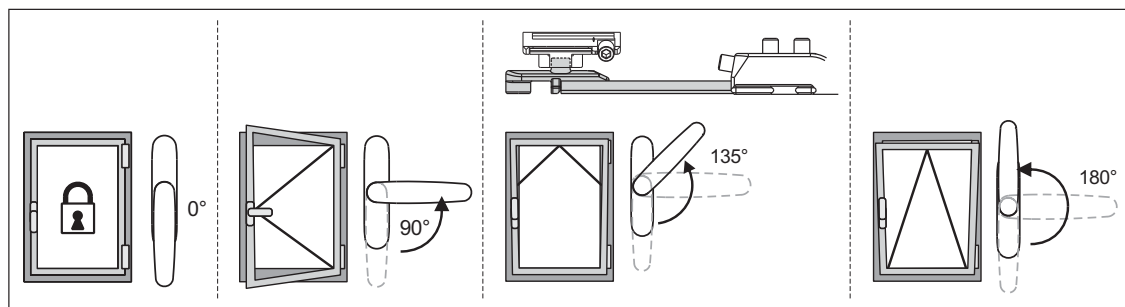
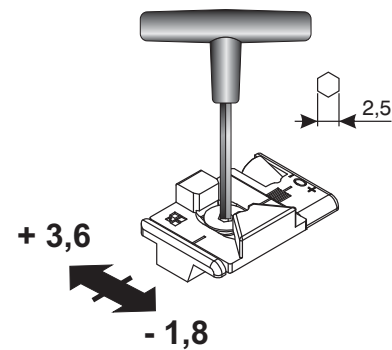
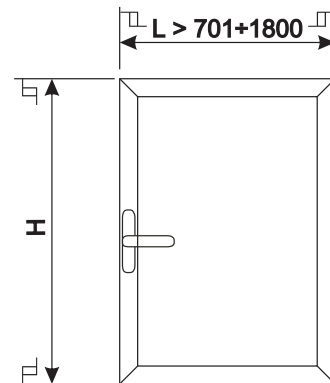
**Materials**

Slotted body, slider and striker in zamak SILVER PLUS GS

Stainless steel arm

Arm for rod aluminium

Screws and grub screws stainless steel



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-38**

**SECONDARY TILT&TURN FUTURA 3D 944001-R**  
**170 Kg SASH HINGES 944002-L**

**Functions**

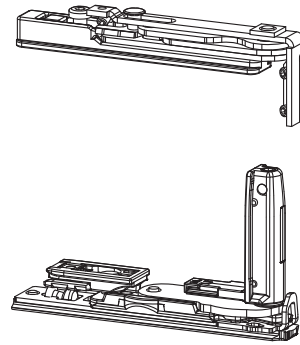
Hinge unit (upper and lower) for side-hung window or casement window combined with FUTURA 3D 170 HP Invisible tilt-and turn window.

**Finish**

Base finish

**Packaging**

Box of 5 pieces



**FUTURA 3D 130Kg INVISIBLE**

**Maximum possible weight (Aluminum and glass)**

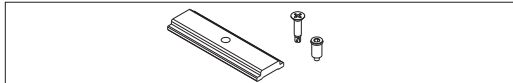
2500	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2400	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2300	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2200	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2100	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2000	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1900	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1800	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1700	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1600	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	122
1500	130	130	130	130	130	130	130	130	130	130	130	130	130	130	121	114
1400	130	130	130	130	130	130	130	130	130	130	130	130	130	121	113	106
1300	130	130	130	130	130	130	130	130	130	130	130	120	111	104		
1200	130	130	130	130	130	130	130	130	130	130	119	110	102			
1100	130	130	130	130	130	130	130	130	130	118	108	100				
1000	130	130	130	130	130	130	130	117	106	98						
900	130	130	130	130	130	130	116	104	95							
800	130	130	130	130	130	114	101	91								
700	130	130	130	130	111	98	87									
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	

**FUTURA 3D 130Kg<W<170Kg INVISIBLE**

**Maximum possible weight (Aluminum and glass)**

2500	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2400	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2300	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2200	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2100	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	163
2000	130	130	170	170	170	170	170	170	170	170	170	170	170	165	154	
1900	130	130	170	170	170	170	170	170	170	170	170	167	156	146		
1800	130	130	170	170	170	170	170	170	170	170	170	170	158	147	138	
1700	130	130	170	170	170	170	170	170	170	170	160	149	139	130	122	
1600	130	130	170	170	170	170	170	170	170	163	150	139	130	122		
1500	130	130	170	170	170	170	170	170	165	152	140	130	121	114		
1400	130	130	170	170	170	170	170	169	154	141	130	121	113	106		
1300	130	130	170	170	170	170	170	156	142	130	120	111	104			
1200	130	130	170	170	170	170	159	143	130	119	110	102				
1100	130	130	170	170	170	163	144	130	118	108	100					
1000	130	130	170	170	167	146	130	117	106	98						
900	130	130	170	170	149	130	116	104	95							
800	130	130	165	152	130	114	101	91								
700	130	130	142	130	111	98	87									
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	

The product has a basic load capacity of 130 kg. For higher load capacities up to 170 Kg use reinforcement kit Art. 904409.



**SYSTEM MODEL: WS 75**

**CAD FILE : WS-75 cat.dwg**

**SCALE : 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE : 75-13-41**

**TILT&TURN FUTURA 3D 130Kg**      **942061-R**  
**INVISIBLE HINGES**                      **942062-L**

**Functions**

Hinges (upper and lower) and short arm T1, required for creating a Futura 3D 130 HP Invisible Tilt and Turn.

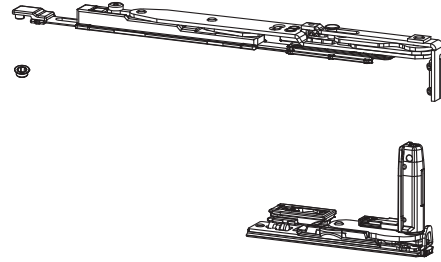
**This hinge is for tilt and turn narrow window W=430mm to 640mm (17" to 25.2")**

**This hinge is working with 904704 and 904705 mechanism.**

Painted in RAL colours

**Packaging**

Box of 5 pieces



The FUTURA 3D 130 HP Invisible Tilt and Turn is classified for 130 kg.

It is available in two versions: conventional FUTURA 3D 130 HP Invisible and logica FUTURA 3D 130 HP Invisible lgc.

For the minimum and maximum possible dimensions and for the weight to be used, always refer to the tables given opposite.

**FUTURA 3D 130kg INVISIBLE**

**Maximum possible weight (Aluminum and glass)**

2500	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2400	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2300	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2200	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2100	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2000	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1900	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1800	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1700	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1600	130	130	130	130	130	130	130	130	130	130	130	130	130	122	
1500	130	130	130	130	130	130	130	130	130	130	130	130	121	114	
1400	130	130	130	130	130	130	130	130	130	130	130	130	121	113	106
1300	130	130	130	130	130	130	130	130	130	130	120	111	104		
1200	130	130	130	130	130	130	130	130	130	119	110	102			
1100	130	130	130	130	130	130	130	130	118	108	100				
1000	130	130	130	130	130	130	130	117	106	98					
900	130	130	130	130	130	116	104	95							
800	130	130	130	130	114	101	91								
700	130	130	130	111	98	87									
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700

**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-45**



**TILT&TURN FUTURA 3D 170Kg**      **942071-R**  
**INVISIBLE HINGES**                      **942072-L**

**Functions**

Hinges (upper and lower) and long arm T2, required for creating a Futura 3D 170 HP Invisible Tilt and Turn.

**This hinge is for tilt and turn narrow window W=640mm to 1700mm (25.2" to 70")**

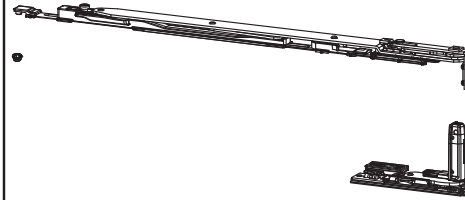
**This hinge is working with 904704 and 904705 mechanism.**

**Finish**

Base finish

**Packaging**

Box of 5 pieces



The FUTURA 3D 170 HP Invisible Tilt and Turn is classified for 170 kg.

It is available in two versions: conventional FUTURA 3D 170 HP Invisible and logica FUTURA 3D 170 HP Invisible lgc.

For the minimum and maximum possible dimensions and for the glass to be used, always refer to the tables given opposite.

**FUTURA 3D 130Kg INVISIBLE**

**Maximum possible weight (Aluminum and glass)**

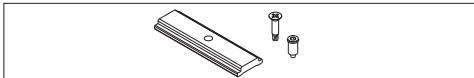
2500	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2400	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2300	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2200	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2100	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2000	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1900	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1800	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1700	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1600	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	122
1500	130	130	130	130	130	130	130	130	130	130	130	130	130	121	114	
1400	130	130	130	130	130	130	130	130	130	130	130	130	121	113	106	
1300	130	130	130	130	130	130	130	130	130	130	130	120	111	104		
1200	130	130	130	130	130	130	130	130	119	110	102					
1100	130	130	130	130	130	130	130	130	118	108	100					
1000	130	130	130	130	130	130	117	106	98							
900	130	130	130	130	130	116	104	95								
800	130	130	130	130	114	101	91									
700	130	130	130	111	98	87										
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	

**FUTURA 3D 130Kg<W<170Kg INVISIBLE**

**Maximum possible weight (Aluminum and glass)**

2500	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2400	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2300	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2200	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2100	130	130	170	170	170	170	170	170	170	170	170	170	170	170	163	
2000	130	130	170	170	170	170	170	170	170	170	170	170	170	165	154	
1900	130	130	170	170	170	170	170	170	170	170	170	170	170	167	156	146
1800	130	130	170	170	170	170	170	170	170	170	170	170	170	158	147	138
1700	130	130	170	170	170	170	170	170	170	170	160	149	139	130		
1600	130	130	170	170	170	170	170	170	170	170	163	150	139	130	122	
1500	130	130	170	170	170	170	170	170	165	152	140	130	121	114		
1400	130	130	170	170	170	170	170	169	154	141	130	121	113	106		
1300	130	130	170	170	170	170	170	156	142	130	120	111	104			
1200	130	130	170	170	170	170	159	143	130	119	110	102				
1100	130	130	170	170	170	163	144	130	118	108	100					
1000	130	130	170	170	167	146	130	117	106	98						
900	130	130	170	170	149	130	116	104	95							
800	130	130	165	152	130	114	101	91								
700	130	130	142	130	111	98	87									
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700	

The product has a basic load capacity of 130 kg. For higher load capacities up to 170 Kg use reinforcement kit Art. 904409.



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-46**

**TILT&TURN FUTURA 3D 130Kg 942081-R**
**INVISIBLE HINGES LGC 942082-L**
**Functions**

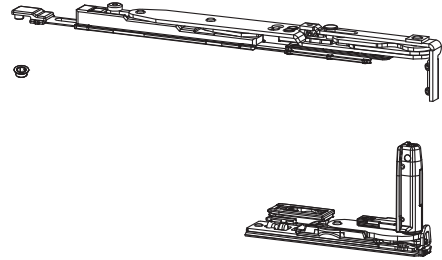
Hinges (upper and lower) and short arm T1, required for creating a Futura3D 130 HP Invisible Tilt and Turn.

**This hinge is for tilt and turn narrow window W=430mm to 640mm (17" to 25.2")**
**This hinge is working with 904706 and 904707 mechanism.**

Painted in RAL colours

**Packaging**

Box of 5 pieces



The FUTURA 3D 130 HP Invisible Tilt and Turn is classified for 130 kg.

It is available in two versions: conventional FUTURA 3D 130 HP Invisible and logica FUTURA 3D 130 HP Invisible lgc.

For the minimum and maximum possible dimensions and for the weight to be used, always refer to the tables given opposite.

**FUTURA 3D 130Kg INVISIBLE**
**Maximum possible weight (Aluminum and glass)**

2500	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2400	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2300	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2200	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2100	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
2000	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1900	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1800	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1700	130	130	130	130	130	130	130	130	130	130	130	130	130	130	
1600	130	130	130	130	130	130	130	130	130	130	130	130	130	122	
1500	130	130	130	130	130	130	130	130	130	130	130	130	121	114	
1400	130	130	130	130	130	130	130	130	130	130	130	130	121	113	
1300	130	130	130	130	130	130	130	130	130	130	120	111	104		
1200	130	130	130	130	130	130	130	130	130	119	110	102			
1100	130	130	130	130	130	130	130	130	118	108	100				
1000	130	130	130	130	130	130	130	117	106	98					
900	130	130	130	130	130	130	116	104	95						
800	130	130	130	130	130	114	101	91							
700	130	130	130	130	111	98	87								
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700

**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-47**

**TILT&TURN FUTURA 3D 170Kg**      **942091-R**  
**INVISIBLE HINGES LGC**              **942092-L**

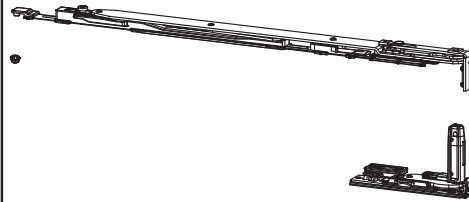
**Functions**  
Hinges (upper and lower) and long arm T2, required for creating a Futura 3D 170 HP Invisible Tilt and Turn.

**This hinge is for tilt and turn narrow window W=640mm to 1700mm (25.2" to 70")**

**This hinge is working with 904706 and 904707 mechanism.**

**Finish**  
Base finish

**Packaging**  
Box of 5 pieces



The FUTURA 3D 170 HP Invisible Tilt and Turn is classified for 170 kg.  
It is available in two versions: conventional FUTURA 3D 170 HP Invisible and logica FUTURA 3D 170 HP Invisible lgc.  
For the minimum and maximum possible dimensions and for the glass to be used, always refer to the tables given opposite.

**FUTURA 3D 130Kg INVISIBLE**

**Maximum possible weight (Aluminum and glass)**

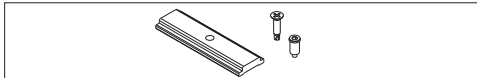
2500	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2400	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2300	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2200	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2100	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
2000	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1900	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1800	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1700	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130
1600	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	130	122
1500	130	130	130	130	130	130	130	130	130	130	130	130	130	130	121	114	
1400	130	130	130	130	130	130	130	130	130	130	130	130	121	113	106		
1300	130	130	130	130	130	130	130	130	130	130	130	120	111	104			
1200	130	130	130	130	130	130	130	130	130	119	110	102					
1100	130	130	130	130	130	130	130	130	118	108	100						
1000	130	130	130	130	130	130	130	117	106	98							
900	130	130	130	130	130	116	104	95									
800	130	130	130	130	114	101	91										
700	130	130	130	130	111	98	87										
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700		

**FUTURA 3D 130Kg<W<170Kg INVISIBLE**

**Maximum possible weight (Aluminum and glass)**

2500	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2400	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2300	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2200	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	170	170
2100	130	130	170	170	170	170	170	170	170	170	170	170	170	170	170	163	163
2000	130	130	170	170	170	170	170	170	170	170	170	170	170	165	154		
1900	130	130	170	170	170	170	170	170	170	170	170	170	167	156	146		
1800	130	130	170	170	170	170	170	170	170	170	170	170	158	147	138		
1700	130	130	170	170	170	170	170	170	170	170	160	149	139	130			
1600	130	130	170	170	170	170	170	170	170	163	150	139	130	122			
1500	130	130	170	170	170	170	170	170	165	152	140	130	121	114			
1400	130	130	170	170	170	170	170	169	154	141	130	121	113	106			
1300	130	130	170	170	170	170	170	156	142	130	120	111	104				
1200	130	130	170	170	170	170	159	143	130	119	110	102					
1100	130	130	170	170	170	163	144	130	118	108	100						
1000	130	130	170	170	167	146	130	117	106	98							
900	130	130	170	170	149	130	116	104	95								
800	130	130	165	152	130	114	101	91									
700	130	130	142	130	111	98	87										
600	430	500	550	600	700	800	900	1000	1100	1200	1300	1400	1500	1600	1700		

The product has a basic load capacity of 130 kg. For higher load capacities up to 170 Kg use reinforcement kit Art. 904409.



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-48**

**CORNER DRIVE**
**904019**
**Functions**

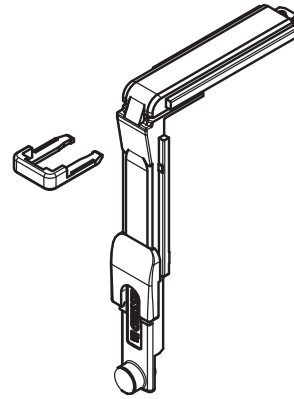
Element for transmission of movement of the hardware on the cremone side to the upper and/or lower cross beam.

**Finish**

Base finish

**Packaging**

Box of 10 pieces

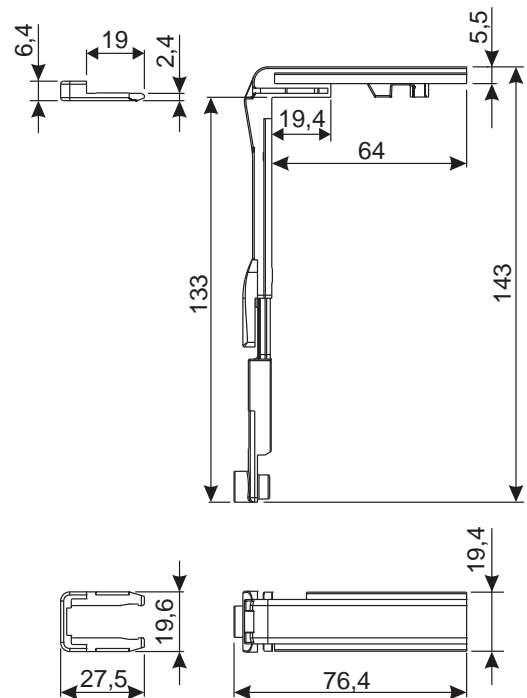

**Technical Features**

Left/right reversible and equipped with a fixed pawl for creating a lock point in combination with the adjustable striker, on the cremone side or cross beam side, depending on how the drive is to be positioned.

It is secured using a hooking clip enabling quick and easy fixing without having to machine the profile and without screws. It snaps on and is removed using a screwdriver.

**Materials**

SILVER PLUS GS Zamak body and clip  
Stainless steel plates


**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-51**

**ADDITIONAL CORNER DRIVE FOR TILT&TURN 904024**
**Functions**

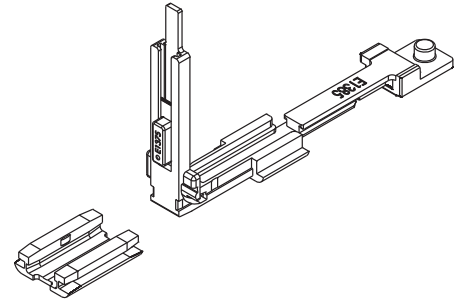
Corner joint for application of anti-burglar device.

**Finish**

Base finish

**Packaging**

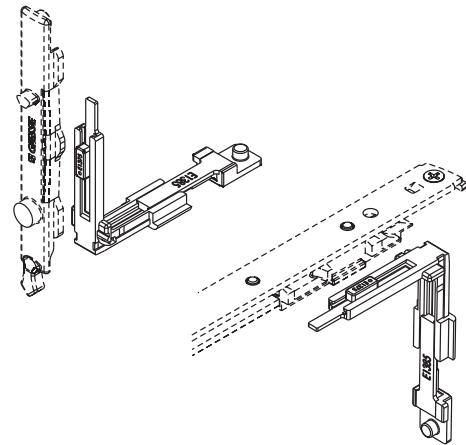
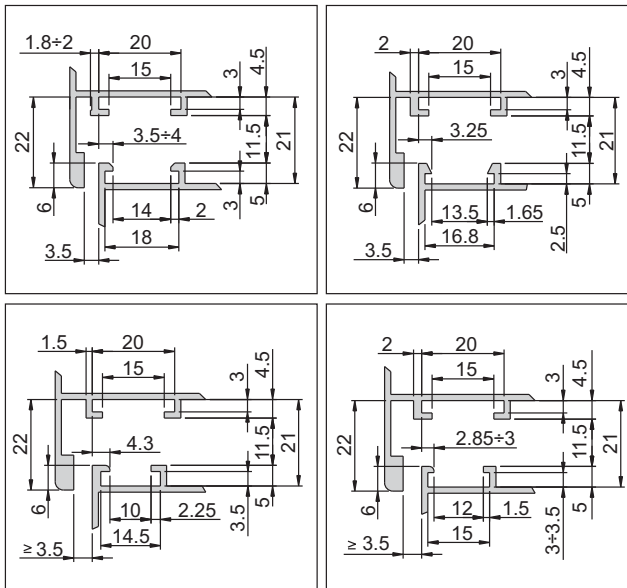
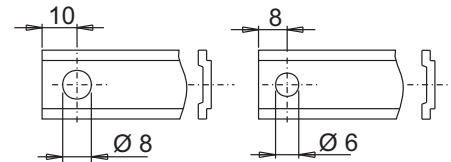
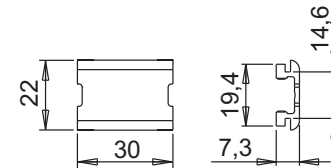
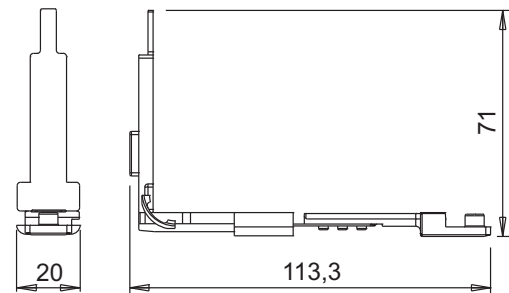
Box of 10 pieces


**Technical Features**

This unit is required when the anti-burglar device is fitted on the lower crosspiece and on the hinge side jamb when supplementary fastenings are not fitted when sash dimensions do not require them (H < 1200 mm and L < 1000 mm).

**Materials**

SILVER PLUS GS Zamak body, hand and lifting element  
Stainless steel plates



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-52**

**ADDITIONAL ARM T/T. - RESTRICTOR 904301**
**Functions**

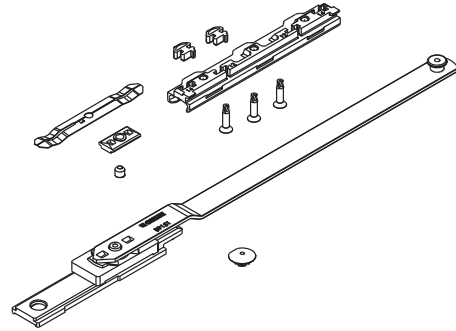
Additional arm for combining with the type 2 arm on windows with sashes wider than 1000 mm, whose function is to distribute the force with which the sash is opened during tilt opening. The same arm can also be used on ARCHED and SLANTED windows with sashes wider than 900 mm.

**Finish**

Base finish

**Packaging**

Box of 5 pieces


**Technical Features**

The additional arm is used on sashes wider than 1000 mm and fitted to the upper cross beam on the opposite side to the arm (corner drive side), preventing an excessive leverage during tilt opening which could otherwise impair window operation.

The arm comprises a component to be hooked to the corner drive without fixing screws, a rod and a slider to be fixed to the frame with the two supplied grub screws.

The component and the respective slider function only when through the cremone the mechanism is set in the tilt opening position. In fact, the pin on the rod fixed to the corner drive enters the slider on the frame only in this case.

During the tilt opening, the sash pin moves inside the slider, preventing the sash from opening excessively and balancing the weight on the type 2 arm as well as on the additional arm.

For ARCHED or SLANTED windows, the additional arm is used on the command side, fixed directly to the cremone drive or the window handle mechanism.

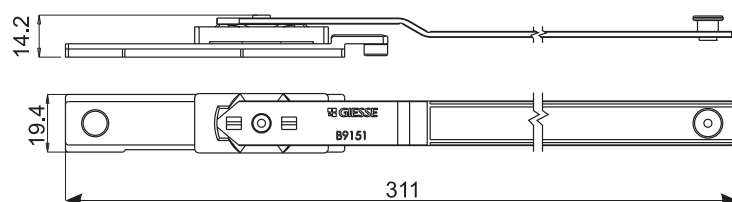
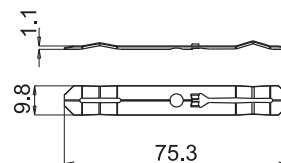
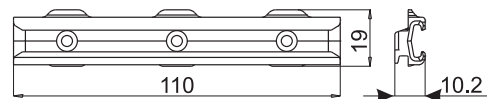
Its use, which is essential to increase the window security level, is recommended for sashes widths from 900 to 1100 mm, and compulsory for sashes wider than 1100 mm and heights greater than 1600 mm.

**Parts**

Instructions sheet

**Materials**

Stainless steel arm  
Die-cast zamak slider  
Nylon spacer  
Steel screws  
Zamak stopper



**SYSTEM MODEL: WS 75**

**CAD FILE: WS-75 cat.dwg**

**SCALE: 1:1**

**VER - DATE: 2 - May/08/14**

**PAGE: 75-13-55**

**ADJUSTABLE FASTENING ELEMENT**
**901350**
**Functions**

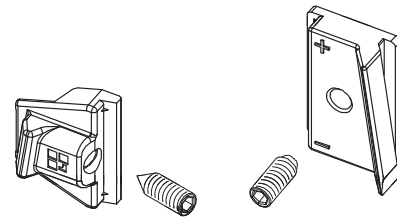
The adjustable fastening element serves to create additional closure points on any aluminium door or window frame, thereby making the entire structure more penetration resistant. Can be installed on unassembled or assembled frames.

**Finish**

Natural

**Packaging**

Box of 50 units

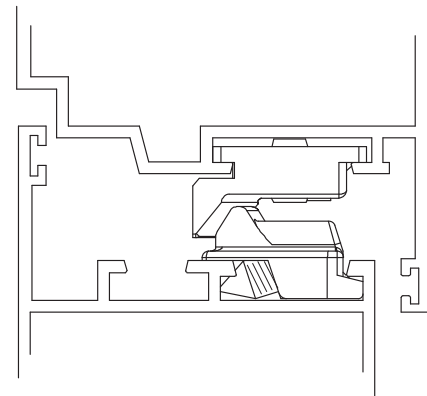
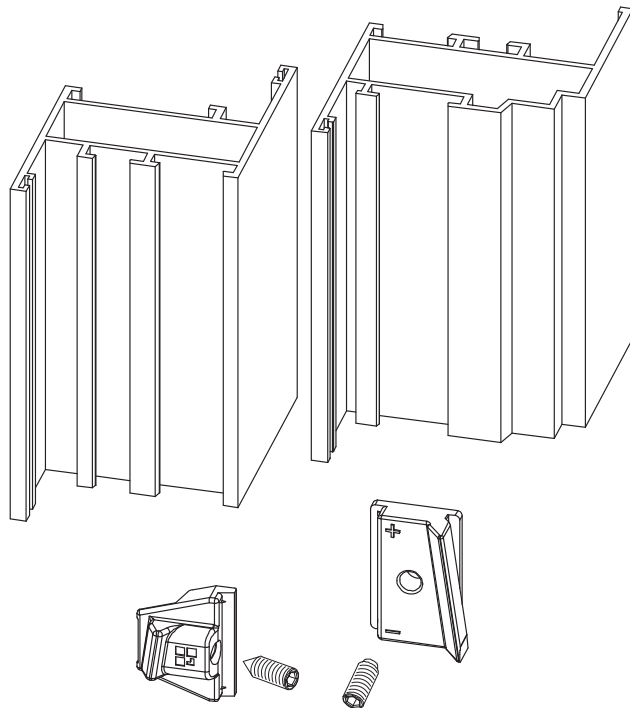

**Technical features**

Comprises two elements: striker and fastener. These components can be fixed easily without applying undue force and without requiring special machining. The adjustment facility serves to optimize the pressure exerted by the sash on the frame.

The fastening element is mounted on the hinge side and is recommended for use on doors and windows with widely spaced hinges.

**Materials**

SILVER PLUS GS Zamak body  
Stainless steel screws


**SYSTEM MODEL: WS 75**
**CAD FILE : WS-75 cat.dwg**
**SCALE : 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE : 75-13-56**

**STRIKER MICROVENTILATION**
**902297**
**Functions**

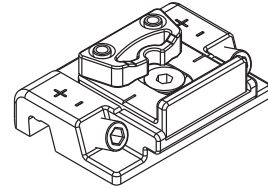
A device allowing precision opening of the window, called "microventilation".

**Finish**

Base finish

**Packaging**

Box of 50 pieces


**Technical Features**

The device must be used with fixed striker, to be combined with an adjustable pawland activated with a GIESSE sash Cremone.

The mechanism at 90° the sash opens normally; with the mechanism at 180° microventilation is activated.

The device is two-handed and can be fitted with the window completed, taking into account the need of the special Cremone.

The micro-ventilation device allows sash opening to be adjusted between +/- 1,8 mm (passage of the air).

This device is always useful and is particularly recommended in very warm or very cold climates in which total tilt opening of the window for ventilation purposes would lead to a significant temperature change of the room with consequent wastage of energy to restore the required interior temperature.

**Parts**

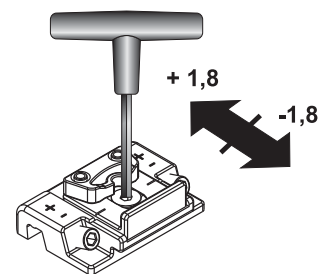
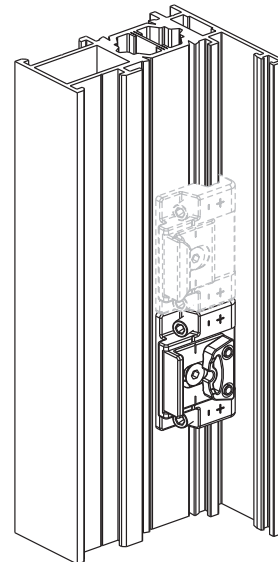
Instructions sheet

**Materials**

Zamak striker base and slider for striker

Striker plate in nylon

Grub screws and screws in stainless steel


**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-57**



**ADJUSTABLE SINGLE STRIKER**
**901347**
**Functions**

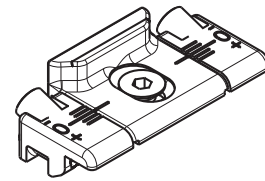
Element that works with the connection joints and the pawls present on bolt tips, corner drives, connection devices, cremone drivers and connection rods, with the function of locking point.

**Finish**

Base finish

**Packaging**

Box of 200 pieces

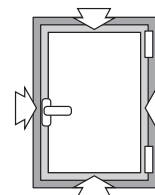
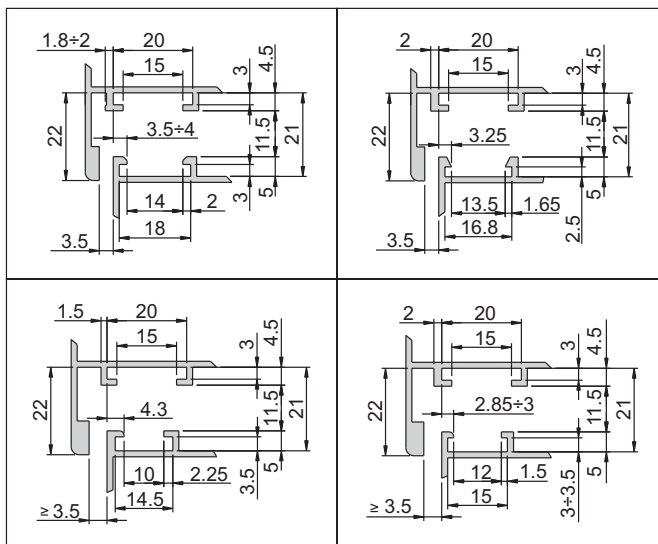
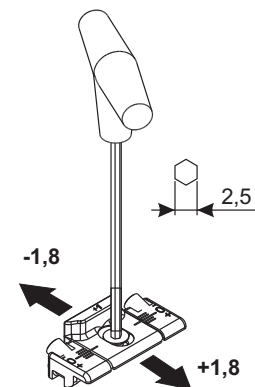
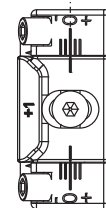

**Technical Features**

The closing function is carried out by means of the central element that works with the pawl during the closing phase of the hardware. This element is adjustable  $\pm 1,8$  mm, by turning the provided screw; the securing on the frame is carried out by means of the two pre-assembled grub-screws.

**Materials**

GS SILVER PLUS Zamak striker

Steel screws and grub screws


 $\pm 1,8$ 

**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-58**

**FIXED CONNECTING JOINT MX-MX**
**904047**
**Functions**

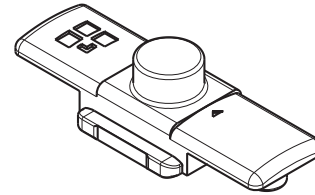
Fixed connection joint, to be coupled to the adjustable striker, necessary to create a locking point.

**Finish**

Base finish

**Packaging**

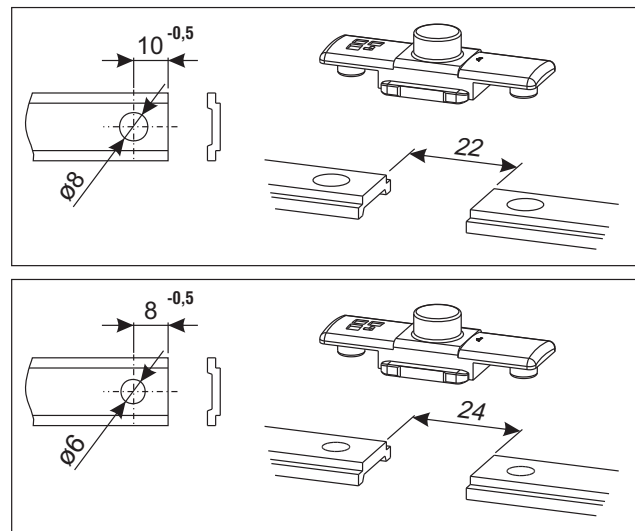
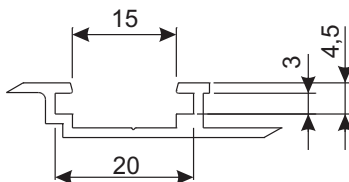
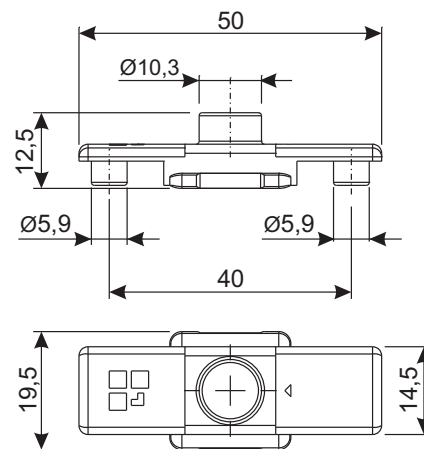
Box of 200 pieces


**Technical Features**

The connection joint can be fitted at the end of a connection rod or to couple two connection rods. In both cases, coupled to an adjustable striker, it creates a locking point.

**Materials**

SILVER PLUS GS zamak connecting element


**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-59**

**REX CORNER JOINT**
**900353**
**Functions**

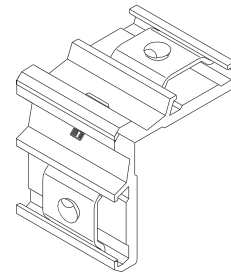
Snap-fit joining element for corner connection of aluminium profiles.

**Finish**

Base finish

**Packaging**

Box of 250 pieces


**Technical Features**

 Corner joint with external buttons  $\varnothing 10$  mm.

The two spring-loaded buttons enable quick and secure assembly of the corner joints.

The closing screw ensures quick joining of the parts.

Specific for joining profiles with 45° end cut.

**Materials**

Extruded aluminium

Galvanised steel screw and buttons

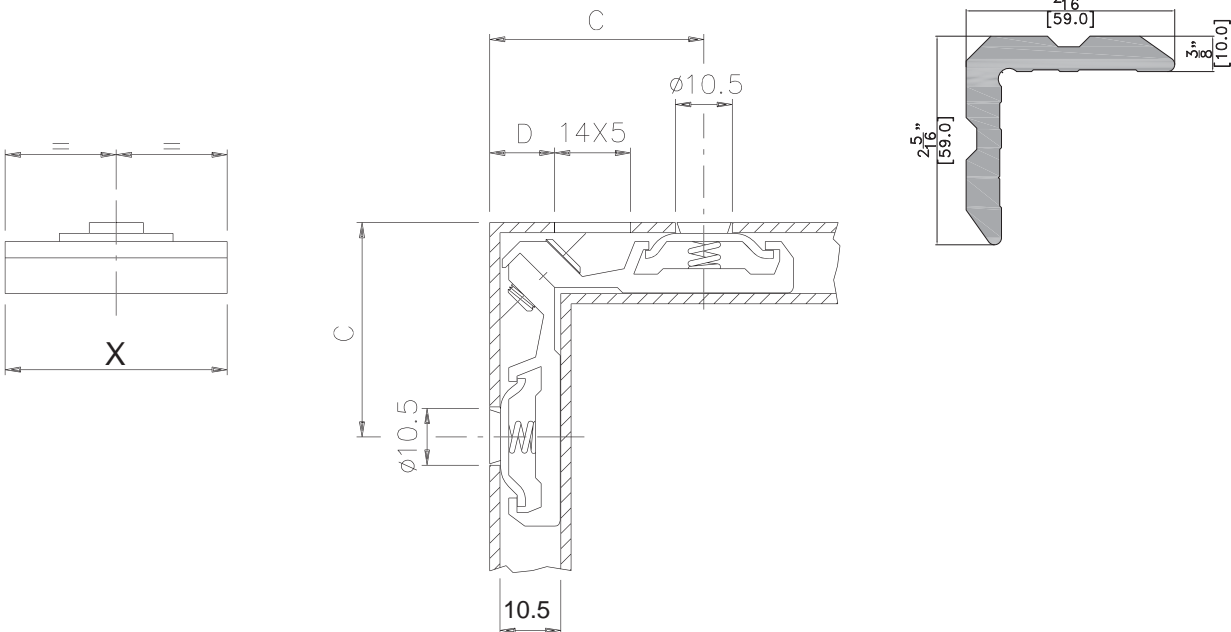
Springs in hardened steel

**Capacity/Certificated/etc(-NP-)**

Capacity description Capacity description Capacity description

Profile	Corner Cleat	Extruded*	X (mm)	h (mm)
752801	900353	900002	19.5	10
752802	900353	900002	19.5	10
753601	900353	900002	19.5	10
754501	900353	900002	19.5	10
754502	900353	900002	19.5	10
754503	900353	900002	19.5	10

**\* 900002 is an extruded profile.**  
**Can be cut to any required width,**  
**but must be connected with a**  
**Crimping machine.**


**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-71**

**KAMEL CORNER JOINT**
**9003XX**
**Functions**

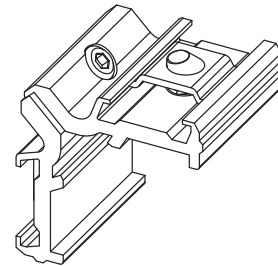
Clip-on corner joint for aluminium profile sections.

**Finish**

Natural

**Packaging**

Box of 100 pieces


**Technical Features**

 Corner joint with external buttons ( $\text{Ø}10 \text{ mm}$ ).

The two buttons are fitted with a spring for rapid and secure joint assembly.

The lock screw facilitates rapid joining of the parts to be assembled.

 Specifically designed to join  $45^\circ$  angle profile sections.

**Parts**

M5x13.5 oval-headed screw

**Materials**

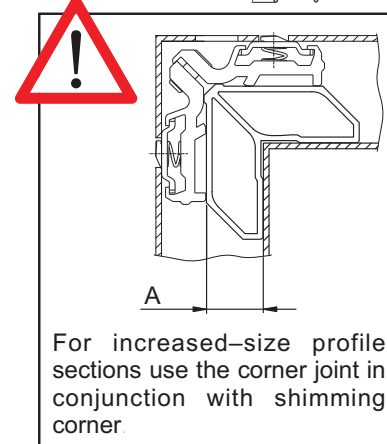
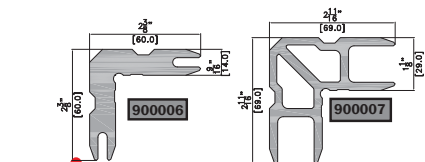
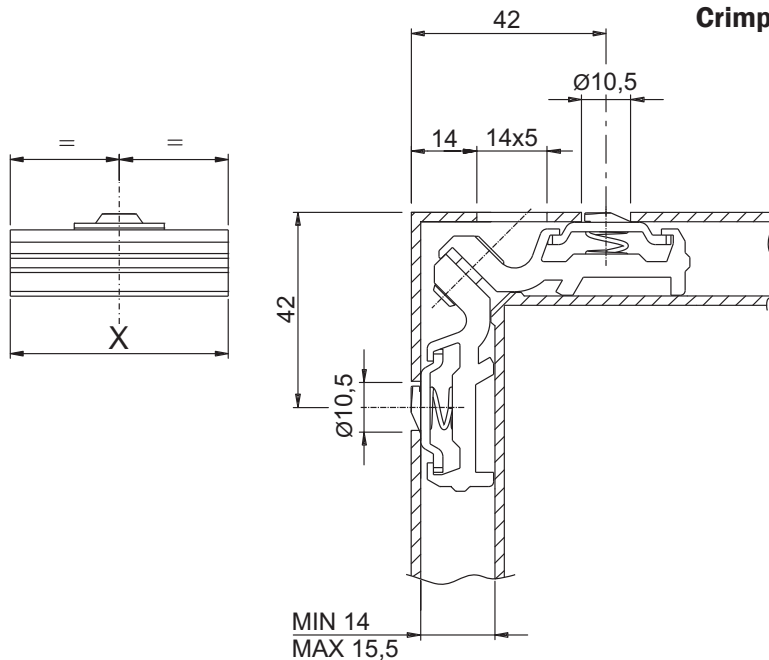
Extruded aluminium

Galvanised steel screw and buttons.

Tempered steel springs.

Profile	Corner Cleat	Extruded*	X (mm)	h (mm)
210033	900344	900006	28.5	14
210038	900344	900006	28.5	14
210038	900344	900006	28.5	14
210050	900344	900006	36	14
216640	-	900007	34	29
216652	-	900007	46	29

\* 900006/7 are extruded profiles.

**Can be cut to any required width, but must be connected with a Crimping machine.**


For increased-size profile sections use the corner joint in conjunction with shimming corner

**SYSTEM MODEL: WS 75**
**CAD FILE: WS-75 cat.dwg**
**SCALE: 1:1**
**VER - DATE: 2 - May/08/14**
**PAGE: 75-13-72**

**WINDLOCH LLC**

3788 SW Armadillo Trail

Arcadia, FL 34266

[info@windloch.com](mailto:info@windloch.com)

[www.windloch.com](http://www.windloch.com)