NATIONAL CERTIFIED TESTING LABORATORIES

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AAMA/WDMA/CSA 101/I.S.2/A440-11

TEST REPORT SUMMARY

Rendered to:

VALUE WHOLESALERS, INC
1830 Flower Avenue
Duarte, CA 91010

PRODUCT TYPE: OX – Lift and Slide Door

SERIES/ MODEL: 85 mm

Title	Summary of Results
Primary Product Designator	Class CW-PG35:Size tested 3658 x 2438 mm (144 x 96 in)-Type SD
Design Pressure	± 1680 Pa (35.09 psf)
Operating Force	44 N (10 lbf) – Initiate 40 N (9 lbf) – In Motion
Air Infiltration/Exfiltration	< 0.1 L/s/m^2 (< 0.01 cfm/ft^2) – Infiltration < 0.1 L/s/m^2 (< 0.01 cfm/ft^2) – Exfiltration
Water Penetration Resistance Test Pressure	960 Pa (20.05 psf)
Uniform Load Structural Test Pressure	± 2520 Pa (52.63 psf)
Forced Entry Resistance	ASTM F842-04 - Grade 25 - Pass CAWM 1-79, CMBSO 301 - Pass

Test Completed: 07/22/14

Reference must be made to Report No. NCTL-310-5800-E0A0 dated 08/02/16 for complete test specimen description and data.

For National Certified Testing Laboratories

Jim Clarke
Structural Performance Technician

NATIONAL CERTIFIED TESTING LABORATORIES

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STRUCTURAL TEST REPORT

NCTL-310-5800-E0A0

REPORT TO:
VALUE WHOLESALERS, INC
1830 FLOWER AVE
DUARTE, CA 91010

ORIGINAL REPORT NUMBER: NCTL-310-4342
ORIGINAL REPORT DATE: 08/18/14
REWRITE REPORT DATE: 08/02/16

PRODUCT:
OX – 3658 mm x 2438 mm (144” x 96”)
85 mm Series Lift and Slide Door

Report Number	NCTL-310-4342
Report Date	08/18/14
Report To	ALUPLAST USA P.O. Box 496 Layton, UT 84041
Test Start Date **Test End Date**	07/22/14 07/22/14
Specification	AAMA/WDMA/CSA 101/I.S.2/A440-11 NAFS 2011 - North American Fenestration Standard/Specification for windows, doors and skylights
Performance Results	Class CW-PG35:Size tested 3658 x 2438 mm (144 x 96 in)-Type SD

Description of Specimen Tested

Note: All dimensions are in the order (Width x Height x Thickness) unless otherwise noted.

Model/ Series	85 mm Series Lift and Slide Door
Configuration	OX
Overall Frame Size	3658 mm x 2438 mm (144” x 96”)
Sash Size	One (1) active panel 1803 mm x 2311 mm (71” x 91”) One (1) fixed panel 1803 mm x 2311 mm (71” x 91”)
Fixed Daylight Opening	1600 mm x 2108 mm (63” x 83”)
Frame & Sash Type	Extruded polyvinyl chloride (PVC) with a three (3) piece extruded aluminum/extruded polyvinyl chloride (PVC) sill
Joint Construction	Panels All panel corners were mitered and welded. The interlocks were separate vinyl extrusions, sealed and multiple screw-connected to each respective meeting rail face. Main Frame All main frame corners were butt cut, sealed with a foam gasket and silicone and double screw-connected through the head and sill into each jamb. An extruded vinyl cover plate was sealed with a foam gasket and silicone and multiple screw-connected to each end of the head and sill.
Fixed Panel Installation	An extruded vinyl panel adaptor was snap-fit and sealed to the top rail and jamb stile of the fixed panel. The panel was set on the sill and multiple screw-connected to the main frame from within the glazing pocket.
Glazing Components	
Overall	25.4 mm (1”) nominal
Glass Thickness	One (1) exterior pane of 6.35 mm (0.25”) nominal laminated and one interior pane of 4.76 mm (0.1875”) nominal annealed
Spacer Type/Size	12.76 mm (0.50”) nominal stainless steel (SS-D)
Glazing System	Interior glazed with a soft vinyl gasket back-bedding and a snap-in extruded vinyl glazing bead with a dual fin soft vinyl glazing gasket. Each glazing corner was sealed with silicone sealant.

Weatherstrip

Type		Soft black vinyl bulb/fin seal
Size		Approximately 9.90 mm (0.390”) diameter bulb with a 7.87 mm (0.310”) long fin
Location		Two (2) rows along the edge face of the active panel top and bottom rails and the lock stile.
Type		Soft black vinyl bulb seal
Size		Approximately 12.19 mm (0.480”) diameter
Location		Within the interlocking leg of each interlock.
Type		Woolpile with integral center fin(s)
Size		9.65 mm (0.380”) high pile
Location	1.	Along the interior face of the snap-fit exterior panel stop on the lock jamb and head within the active panel opening.
	2.	Along the exterior face of the active panel interlock.
Type		Closed cell foam chimney blocks
Location		Applied to the head and sill at the fixed meeting stile

Filler Bars

Type		Extruded vinyl panel stop
Location		snap-fit onto the lock jamb and to the head within the active sash opening towards the exterior
Type		Extruded vinyl track
Location		Snap-fit onto the lock jamb towards the interior. This track is where the lock points were located.
Type		Extruded aluminum panel track
Location		Multiple screw-connected to the head, full width towards the interior. Rigid nylon panel guides were double screw-connected to each end of the active top rail.
Type		Extruded vinyl track cover
Location		Snap-fit onto the edge face of each meeting stile
	Note:	See drawings for additional filler bar details

Operating Hardware

Locks

Type	Interior mounted swing handle/lift and slide mechanism
Location	Double screw-connected to the interior face of the active lock jamb at 1016 mm (40”) from the bottom of the panel. The swing handle also actuated the rollers, lifting the panel for operation.

Keeper

Type	Cast metal strikes
Location	Double screw-connected within the snap-fit lock jamb track at 266.70 mm (10.50”) from the sill and 469.90 mm (18.5”) from the head, two (2) lock points total.

Rollers

Type	Dual nylon wheel roller assemblies
Location	Near each end of the active bottom rail. The rollers rested on an integral extruded aluminum roller track on the sill.

Reinforcement

Type		Extruded aluminum with integral thermal break
Location		Internal hollow of the head and jambs
Type		Extruded aluminum
Location		Internal hollow of the active lock stile and active bottom rail
Type		Galvanized steel box
Thickness		15 gauge
Location	1.	Internal hollow of each fixed panel member
	2.	Internal hollow of the active top rail and meeting stile

Pressure Equalization

Size	22.23 mm (0.875”) notch
Location	Notched into the fixed top rail glazing gasket at 53.98 mm (2.125”) from each end, two (2) total.

Weep Description

Size	27.91 mm x 6.35 mm (1.099” x 0.25”) slots
Location	From each glazing pocket, through the interior wall of the exterior sash leg draining into the exterior-most internal hollow at 60.33 mm (2.375”) and 571.50 mm (22.50”) from each end, four (4) per sash, eight (8) weeps total.
Size	27.91 mm x 4.76 mm (1.099” x 0.1875”) slots
Location	From the exterior-most internal bottom rail hollow, draining out the bottom face to the exterior at 238.13 mm (9.375”) from each end and at the midpoint, three (3) weeps total.

Weep Covers

Interior/ Exterior Surface Finish White vinyl (PVC)

Sealant

Location	Glazing corners and each main frame corner
Material	Silicone

Insect Screen No screen was provided with the test sample

Installation Method The window was installed in a 60.3 mm x 139.7 mm (2.375” x 5.50”) engineered wood buck and the window was fastened through the main frame via #9 x 139.70 mm (5.50”) coarse thread screws at approximately 457.20 mm (18”) on center around the perimeter. The main frame exterior was sealed with silicone to the test buck.

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Test Results - AAMA/WDMA/CSA 101/I.S.2/A440-2011

Paragraph	Test
9.3.1	Operating Force and Force to Latch - Method B (Force Gauge) ASTM E2068-00(08)

Initiate Motion	=	44 N	(10 lbf)
Allowed (Normal Use)	=	180 N	(40.47 lbf)
Maintain Motion - Opening	=	40 N	(9 lbf)
Maintain Motion - Closing	=	36 N	(8 lbf)
Allowed (Normal Use)	=	115 N	(25.85 lbf)
Latches	=	18 N	(4 bf)
Allowed	=	100 N	(22.48 lbf)

NOTE: The results above represent the maximum force among all sash tested.

Paragraph	Test
9.3.2	Air Leakage Resistance ASTM E283-04(12)

The tested specimen meets or exceeds the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440-2011 for air infiltration at 75 Pa (1.57 psf).

Maximum Allowable	=	1.5 L/s/m^2	(0.3 cfm/ft^2)
Infiltration			
Extraneous Air Leakage	=	3.13 L/s	(6.63 cfm)
Total Air Leakage	=	0.12 L/s	(0.25 cfm)
Air Infiltration Rate	=	< 0.1 L/s/m^2	(< 0.01 cfm/ft^2)
Exfiltration			
Extraneous Air Leakage	=	3.13 L/s	(6.63 cfm)
Total Air Leakage	=	< 0.01 L/s	(< 0.01 cfm)
Air Exfiltration Rate	=	< 0.1 L/s/m^2	(< 0.01 cfm/ft^2)

Paragraph	Test
9.3.3	Water Penetration Resistance ASTM E547-00(09)

No Leakage after 4 cycles of 5 minutes at 960 Pa (20.05 psf)

Paragraph	Test
9.3.4.2	Uniform Load Deflection at Design Pressure ASTM E330-02(14)

No damage after positive	1680 Pa (35.09 psf) held for 10 seconds
No damage after negative	1680 Pa (35.09 psf) held for 10 seconds

Measured Deflection $_{Positive}$	=	11.35 mm (0.447 inches)
Measured Deflection $_{Negative}$	=	12.07 mm (0.475 inches)
Maximum Allowed $_{L/175}$	=	13.21 mm (0.520 inches)

Paragraph	Test
9.3.4.3	Uniform Load Structural Test ASTM E330-02(14)

No damage after positive	2520 Pa (52.63 psf) held for 10 seconds
No damage after negative	2520 Pa (52.63 psf) held for 10 seconds

Measured Permanent Set $_{Positive}$	=	0.91 mm (0.036 inches)
Measured Permanent Set $_{Negative}$	=	0.94 mm (0.037 inches)
Maximum Allowed (0.3%)	=	6.93 mm (0.273 inches)

NOTE: Deflection and Permanent Set measurements taken on the active meeting rail over a 1803 mm (91") span

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Paragraph	Test
9.3.5	Forced Entry Resistance ASTM F842-04

Type A Sliding Door Assembly/ Grade 25: Pass

Test	Results	Allowed
Disassembly	No Entry	No Entry
Hand Manipulation Test	No Entry	No Entry
Tool Manipulation Test	No Entry	No Entry
Test A1	No Entry	No Entry
Test A2	No Entry	No Entry
Test A3	No Entry	No Entry
Test A4	No Entry	No Entry
Test A5	No Entry	No Entry
Test A6	No Entry	No Entry
Test A7	No Entry	No Entry
Hardware Manipulation Test	No Entry	No Entry
Sash Manipulation Test	No Entry	No Entry
Fixed Sash tests		
Test A	No Entry	No Entry
Test B	No Entry	No Entry
Test C	No Entry	No Entry
Hand Manipulation Test	No Entry	No Entry
Tool Manipulation Test	No Entry	No Entry

NOTE: 1. T1 = 10 minutes, L1 = 800 lbf, L2 = 200 lbf, L3 = 50 lbf, L4 = 50 lbf
2. Loads were held for 60 seconds.

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Paragraph	Test
9.3.5	Forced Entry Resistance CMBSO 1-79, CAWM 301

Type I Sliding Door Assembly — Pass

Test	Results	Allowed
Disassembly	No Entry	No Entry
Hand/Tool Manipulation Test	No Entry	No Entry
Test A	No Entry	No Entry
Test B	No Entry	No Entry
Test C	No Entry	No Entry
Hand Manipulation Test	No Entry	No Entry
Tool Manipulation Test	No Entry	No Entry
Test D	No Entry	No Entry
Test E	No Entry	No Entry
Test F	No Entry	No Entry
Hand Manipulation Test	No Entry	No Entry
Tool Manipulation Test	No Entry	No Entry
Fixed Panel Tests		
Test A	No Entry	No Entry
Test B	No Entry	No Entry
Test C	No Entry	No Entry
Hand Manipulation Test	No Entry	No Entry
Tool Manipulation Test	No Entry	No Entry

Note: Each Concentrated Load was maintained from the exterior side whenever possible and maintained for a period of one (1) Minute.
The disassembly sequence and the hand and tool manipulation tests were each conducted continuously for a period of five (5) minutes.

Paragraph	Test
9.3.6.2	Thermoplastic Corner Weld Test (PVC products only) - Pass

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Paragraph	Test
9.3.6.3	Deglazing Test ASTM E987-88(09)

Rails – 230 N (51.71 lbf)	Results	Allowed
Top Rail	30.5%	<90% (<100%)
Bottom Rail	31.0%	<90% (<100%)
Stiles – 320 N (71.94 lbf)	Results	Allowed
Jamb Stile	28.0%	<90% (<100%)
Meeting Stile	27.0%	<90% (<100%)

NOTE: The glass bite was approximately 12.7 mm (0.5”)

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All testing was performed at NCTL NW Inc, 3310 Hill Avenue, Everett, WA 98201.

This test report was prepared by National Certified Testing Laboratory NW Inc. (NCTL), for the exclusive use of the above named client and it does not constitute certification of this product. The results are for the particular specimen tested and do not imply the quality of similar or identical products manufactured or installed from specifications identical to the tested product. The test specimen was supplied to NCTL NW by the above named client. No conclusions of any kind regarding the adequacy or inadequacy of the glass in the test specimen are to be drawn from the ASTM E330 test. Forced entry resistance test equipment used is in compliance with Section 7 of the ASTM F842-04 test method. NCTL NW is a testing lab and assumes that all information provided by the client is accurate and does not guarantee or warranty any product tested or installed. The results in this report are actual tested values and are applicable to the specimen tested only, using the components and construction methods described herein.

Detailed drawings were available for laboratory records and compared to the test specimen at the time of this report. Component drawings were reviewed for product verification. The bill of materials contains details with any deviations noted. Ambient conditions during the referenced testing are available upon request. A copy of this report along with representative sections of the test specimen will be retained by NCTL NW. This report does not constitute certification or approval of the product, which may only be granted by a certification program validator or recognized approval entity. All tests were conducted in full compliance with the referenced specifications and/or test methods. This report is the joint property of National Certified Testing Laboratories North West Inc. and the Client to whom it is issued. Permission to reproduce this report by anyone other than National Certified Testing Laboratories North West Inc and the Client must be granted in writing by both of the above parties. This report may not be reproduced, except in its entirety, without the written consent of NCTL NW.

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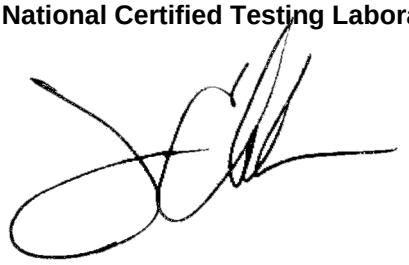

Jim Clarke
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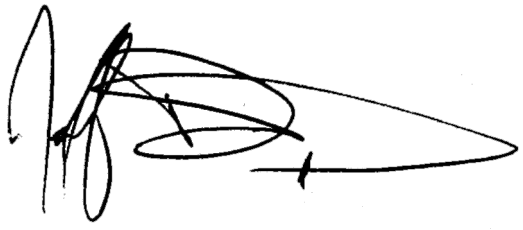


Jeffrey M. Douglas
Lab Manager

Attachments
- Appendix A – Revision Summary
- Appendix B – Drawings

Appendix A

Section 1:

Component Drawings, with Applicable Part Numbers, Manufacturing and Modeling Details, were Reviewed (as submitted) for Product Verification
(Reference: NCTL-310-5800)

See Attached Documentation;
any deviations noted.

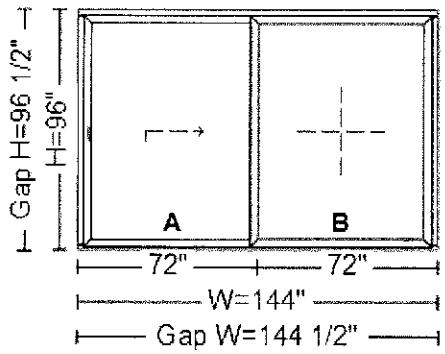
Note: The above referenced component drawings (if applicable) along with representative sections of the test specimen will be retained per procedure by NCTL. This testing facility assumes that all information provided by the client is accurate.

Section 2:

Identification	Date	Page & Revision
Original Issue	03/22/2016	Not Applicable
Rewrite (310-5800)	08/02/2016	Report rewritten to Value Wholesalers, Inc. at request of original client.

Appendix B

Drawings



Component:

Size:	144" x 96"
Profile System:	Lift & Slide / Tropical - Tropical
Fittings:	Maico Hardware
Glass:	26mm - Glass, 1"
Surface:	96.00
Quantity:	1

Component: **NCTL-310-4342.85mm XO Lift and Slide Door**

Part Number	Name	Description	Quantity	Material	Vendor
Profiles					
1790800005850	Frame 63 x 197 mm [Updated]	Jambs	2 pcs	PVC	Aluplast GmbH
1790800005850	Frame 63 x 197 mm [Updated]	Head	1 pcs	PVC	Aluplast GmbH
277224	Aluminium threshold L&S HST with uPVC 48 x 197.5 x 4500 mm [Updated]	Sill	1 pcs	PVC	Aluplast GmbH
1794440005850	Mullion 104 mm (CL) [Updated]	Sash	4 pcs	PVC	Aluplast GmbH
1794440005850	Mullion 104 mm (CL) [Updated]	Sash	4 pcs	PVC	Aluplast GmbH
249 228	Reinforcement Aluminium 40 x 140 x 2.0 mm	Jambs	2 pcs	Aluminum	Aluplast GmbH
249 228	Reinforcement Aluminium 40 x 140 x 2.0 mm	Head	1 pcs	Aluminum	Aluplast GmbH
249035	Reinforcement 40 x 45 x 2.0 mm [Updated]	Sash Jambs	4 pcs	Steel	Aluplast GmbH
249035	Reinforcement 40 x 45 x 2.0 mm [Updated]	Sash Head/Sill	4 pcs	Steel	Aluplast GmbH
170 100	Interlock uPVC 56 x 20 mm (179 100 Tropical)	Sash 1	1 pcs	PVC	Aluplast GmbH
170 100	Interlock uPVC 56 x 20 mm (179 100 Tropical)	Sash 2	1 pcs	PVC	Aluplast GmbH
170 101	Inlet profile 78 x 27.5 mm (179 101 Tropical)	Sill	1 pcs	PVC	Aluplast GmbH
170 102	Sash extension profile 78 x 27 mm (179 102 Tropical)	Sash Head/Sill	1 pcs	PVC	Aluplast GmbH
170 102	Sash extension profile 78 x 27 mm (179 102 Tropical)	Jambs	1 pcs	PVC	Aluplast GmbH
170 104	Stop profile 93 x 35 mm (179 104 Tropical)	Sash Head/Sill	1 pcs	PVC	Aluplast GmbH
170 104	Stop profile 93 x 35 mm (179 104 Tropical)	Sash Jambs	1 pcs	PVC	Aluplast GmbH
170 105	Frame cover profile 2 x 68 mm for 70 / 80 mm (179 105 Tropical)	Sash Jambs	1 pcs	PVC	Aluplast GmbH
170 105	Frame cover profile 2 x 68 mm for 70 / 80 mm (179 105 Tropical)	Sash Jambs	2 pcs	PVC	Aluplast GmbH
176 103	Threshold extension profile 118.5 x 25 mm	Sill	1 pcs	Plastic	Aluplast GmbH
Accessories					
652923	Nipple screw stell for uPVC	mounting for weather bar	23 pcs	stainless steel screws	Aluplast GmbH
670301	Compensating block for fixed glazing for IDEAL 7000	glazing blocks	16 pcs	Plastic	Aluplast GmbH

670380	Frame connector L&S	mechanical connection seal	2	pcs	Plastic	Aluplast GmbH
679300	Sealing plate Grey	Seal	1	pcs	Plastic	Aluplast GmbH
679302	Sealing block L&S Silver	Seal	1	pcs	Plastic	Aluplast GmbH
679303	Sealing plate L&S Grey	Seal	1	pcs	Plastic	Aluplast GmbH
679304	End cap for L&S Silver	Cover caps	1	pcs	Plastic	Aluplast GmbH
679305	Sealing block Silver	seal	1	pcs	Plastic	Aluplast GmbH
679320	Connection for threshold L&S Silver	threshold connector	2	set	Plastic	Aluplast GmbH
679340	Sealing block Silver	seal	1	pcs	Plastic	Aluplast GmbH
679341	Guide glide L&S Silver	track guide	1	set	Aluminum	Aluplast GmbH
Gasket and Brushes						
449180	Tubular Gasket silicone 11 mm Black	EPDM Gasket	4.64	ft	rubber	Aluplast GmbH
449901	Brush seals 6.9 x 11 mm (Guide Rail Head)	mohair	8.65	ft	brush	Aluplast GmbH
479181	EPDM Gasket for Lift and Slide	EPDM Gasket	11.83	ft	rubber	Aluplast GmbH
Hardware						
102944	15,5mm 13mm silver	stainless steel	1	pcs	stainless steel	Maco GmbH
102949	Sash positioner HS silver]	track guide	1	pcs	Aluminum	Maco GmbH
102953	Roller pack HS PVC PD/AP 300kg silver	sash rollers	1	pcs	metalurgical	Maco GmbH
103634	Maniglione HS 12 con coprirosetta e conchiglia corta 68 quadro 42 bianco RAL 9016	handle set	1	pcs	handle sets	Maco GmbH
214418	Lift&Slide espagnolette lock 150/300/400kg BS 37,5 size 4 GM 1.000 2.060-2.560 L=2.500 silver PC	operator	1	pcs	operator	Maco GmbH
359640	Punched connecting rod HS 16.4x4 L=1.196 1.225-1.800 silver	lift release/extension	1	pcs	steel	Maco GmbH
363495	Spessore di sostegno a clip per carrelli HS 300kg e 400 kg	pressure clip	2	pcs	rollers	Maco GmbH

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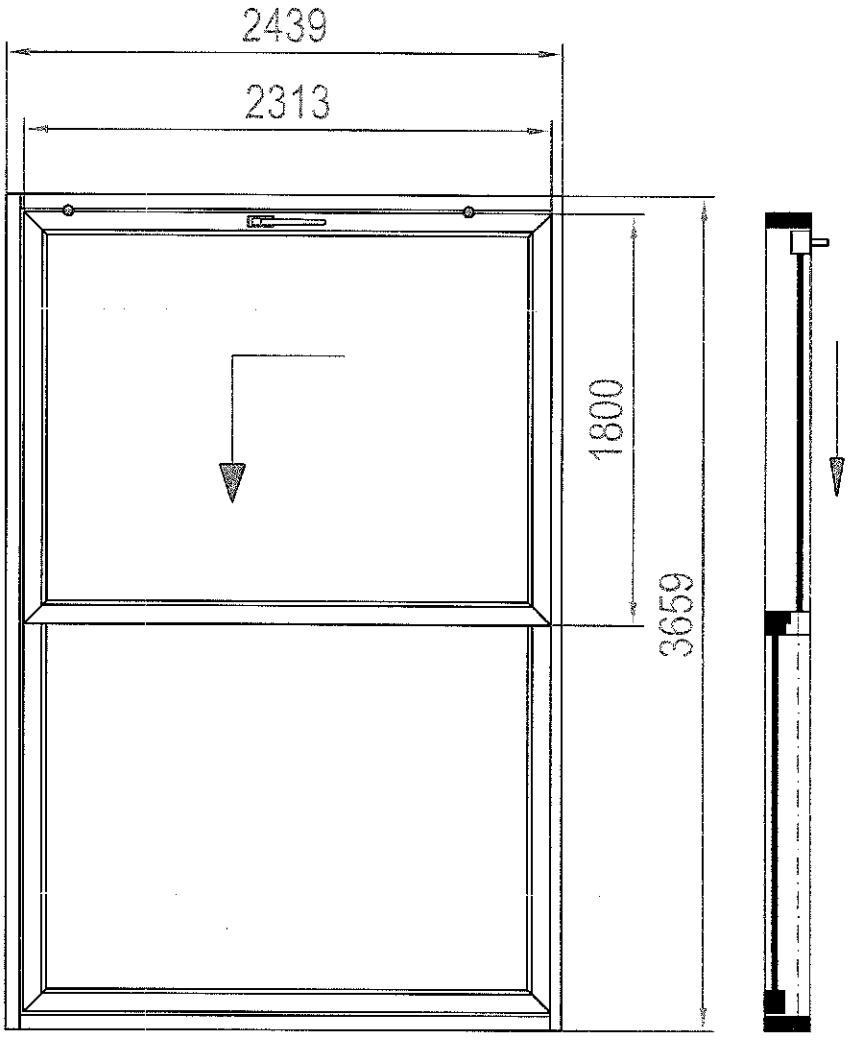

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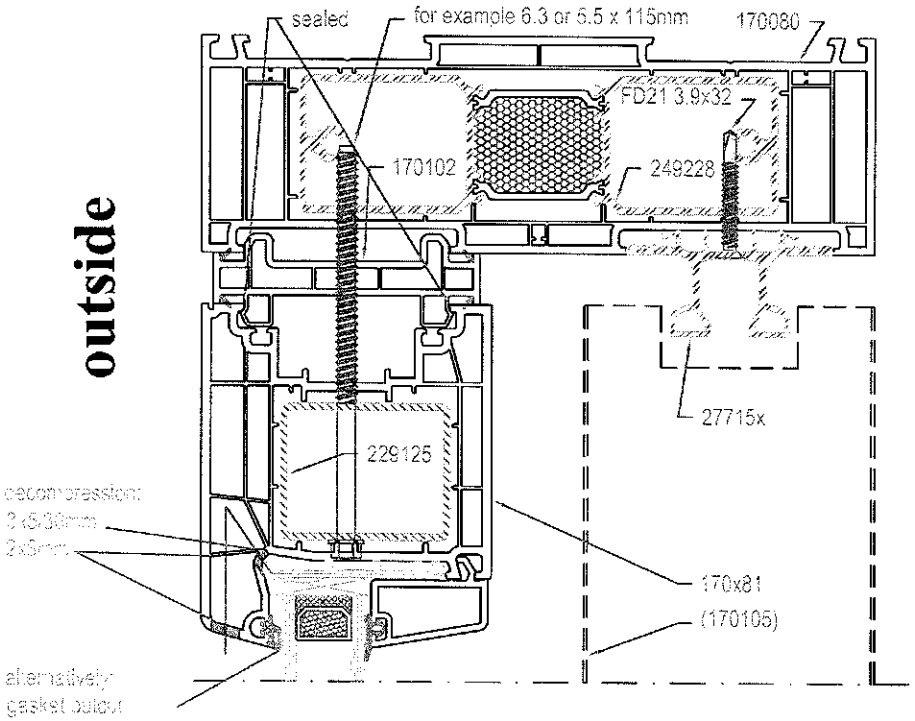

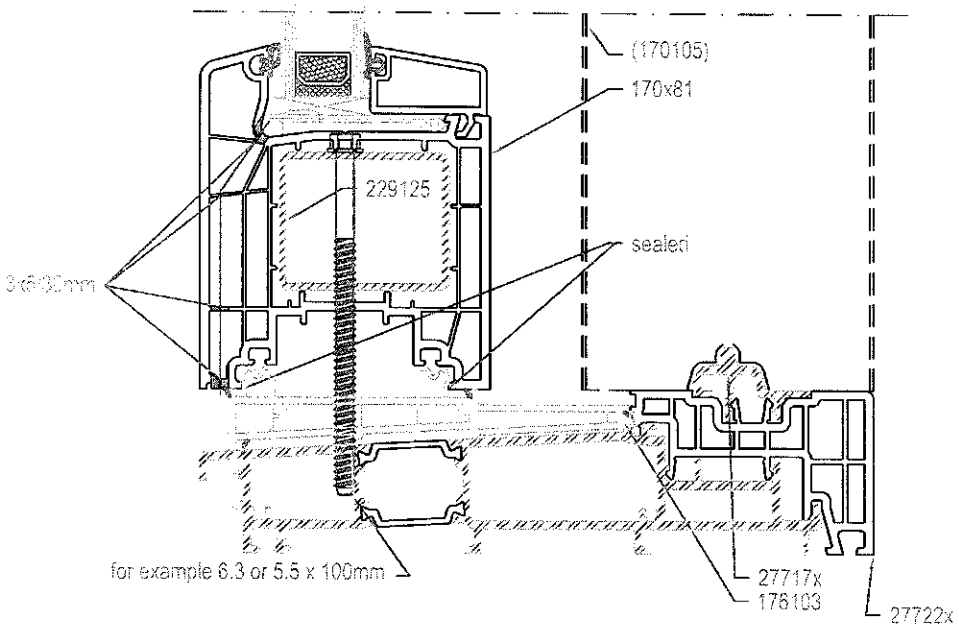

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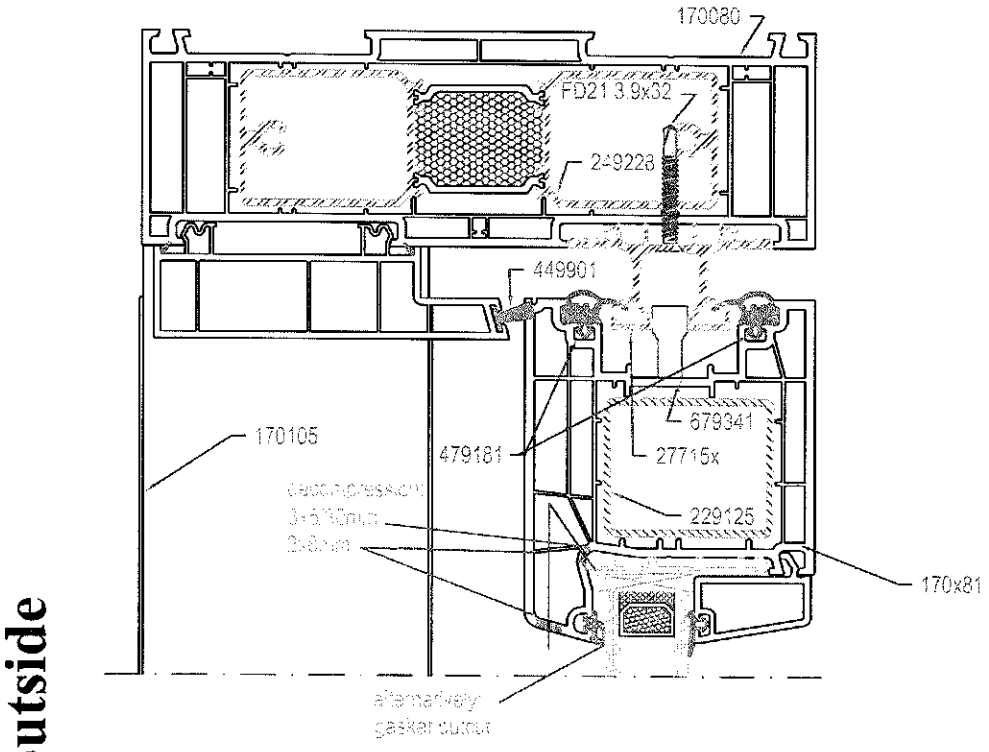

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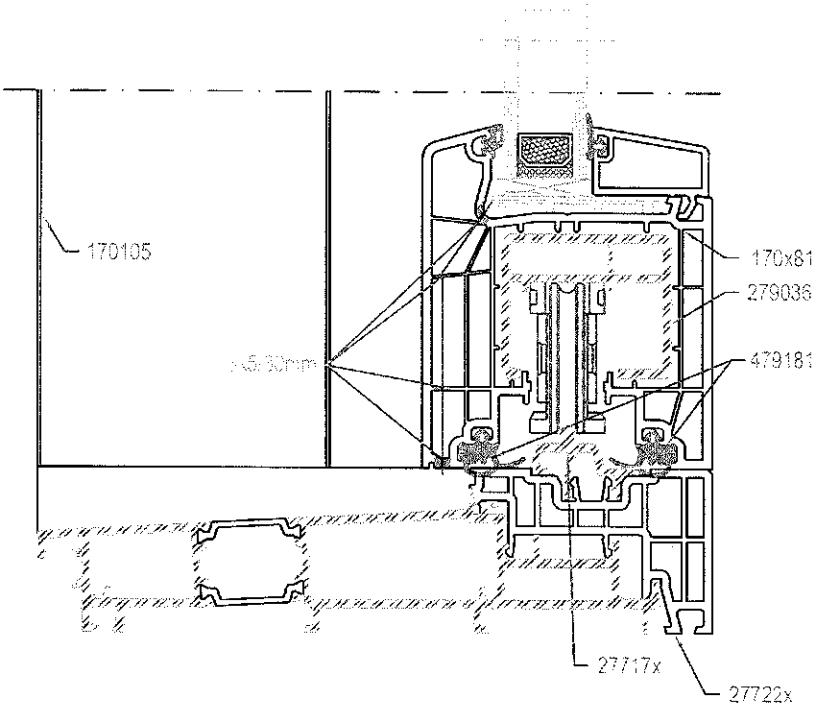

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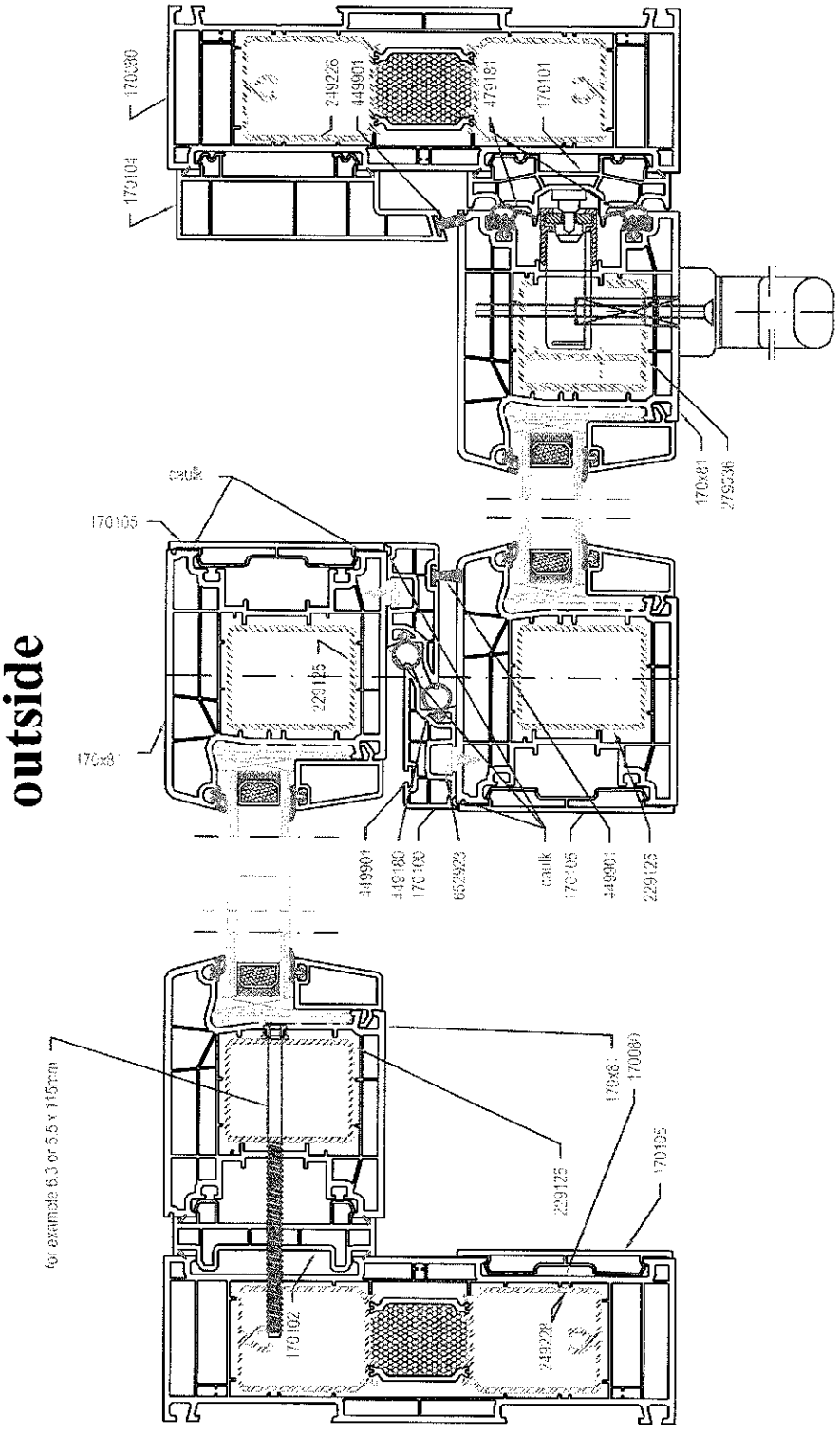
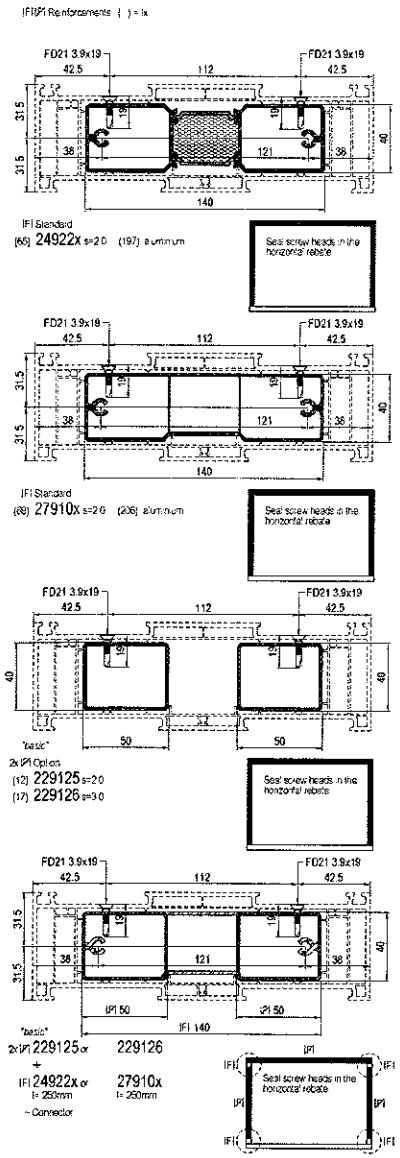
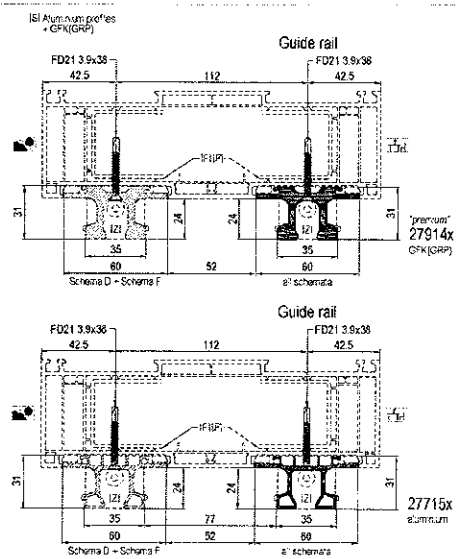
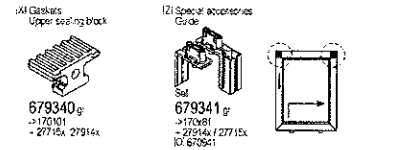
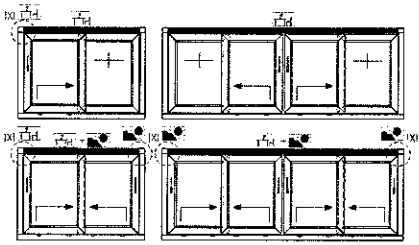
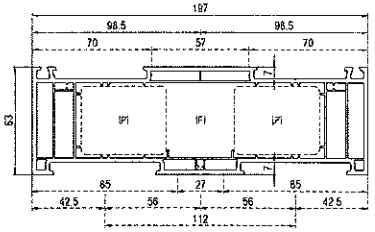


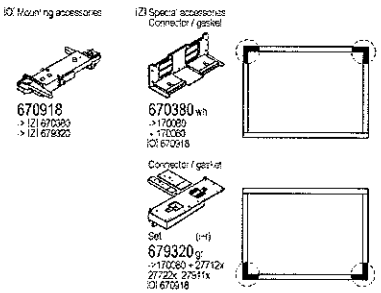


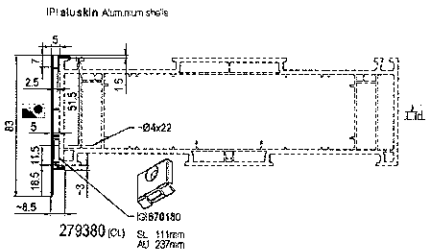


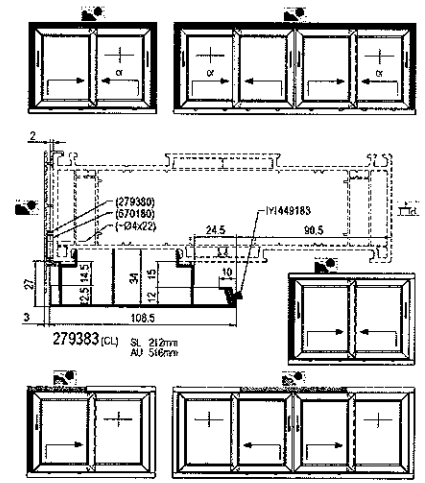


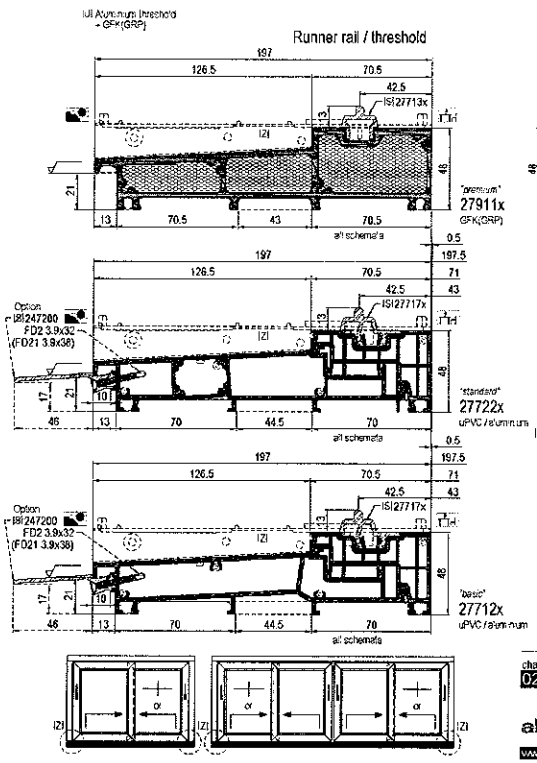


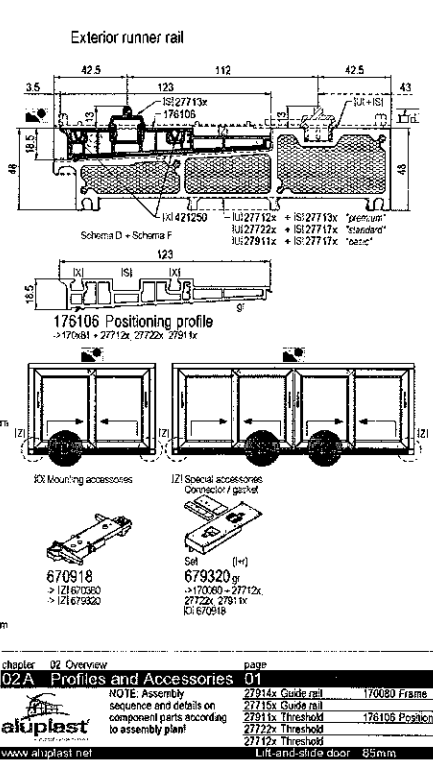


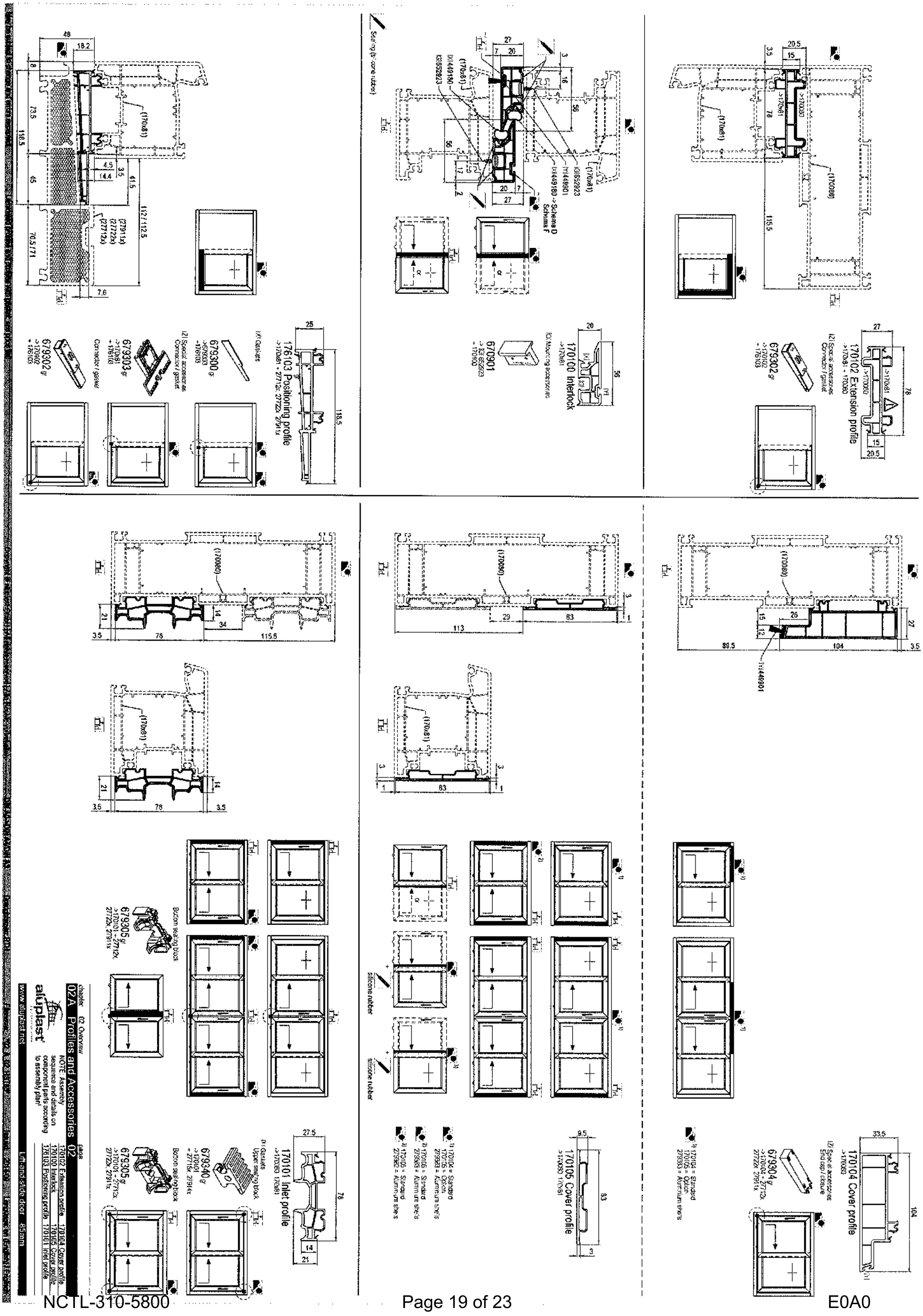






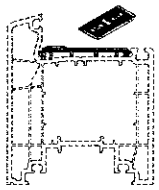






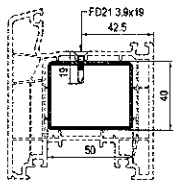
170102 Extension profile
170100 Interlock
176103 Positioning profile
170101 Inlet profile
170105 Cover profile
170104 Cover profile
chapter 02 Overview
02A Profiles and Accessories 02
aluplast
www.aluplast.net
Lift-and-slide door 85mm

IAI Spacer

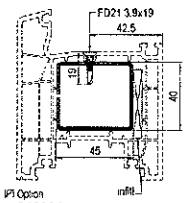


670301

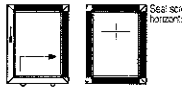
IFI/IPI Reinforcements ( ) = lx

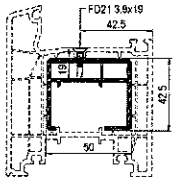


IFI Standard
(12) 229125 s=2.0
(17) 229126 s=3.0

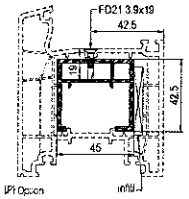


IPI Option
(6.0) 249034 s=1.25
(9.1) 249035 s=2.0

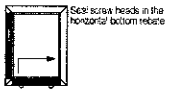


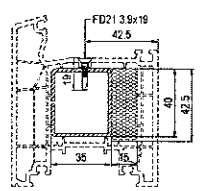


IFI Standard
(5.9) 279036 s=2.8
(17.6) aluminium



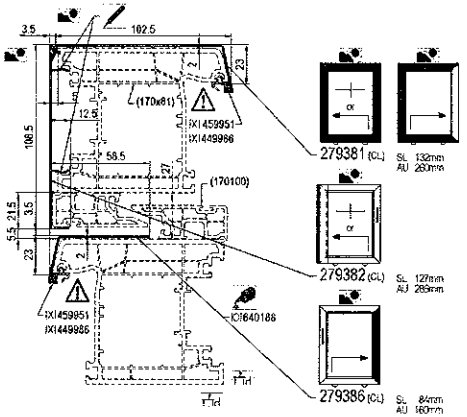
IPI Option
(4.7) 249036 s=2.8
(14.1) aluminium





IFI "premium"
(3.9) 229114 s=1.5 + 15x42.5mm
(5.0) 229115 s=2.0 + 15x42.5mm

IPI aluskin Aluminium shells

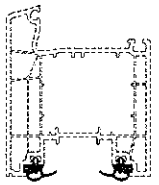


SL 132mm
AU 269mm

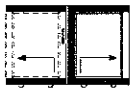
SL 127mm
AU 269mm

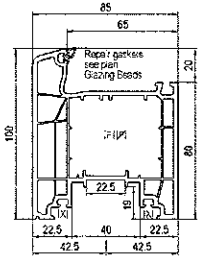
SL 84mm
AU 160mm

IAI Gaskets



479181 bl





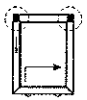
170x81 Sash

IOI Mounting accessories

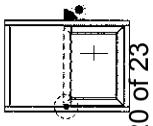
670941
-> IZI 679341

IZI Spacer accessories

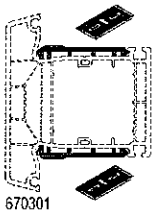
679341 gr
-> 170x81
+ 279144 / 279715x
IOI 670941



679303 g
-> 170x81
+ 176103

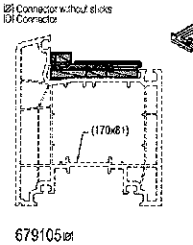


IAI Spacer

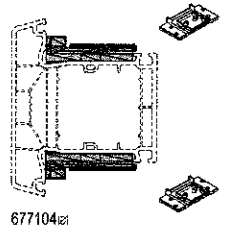


670301

IBI Connector without sticks
IDI Connector

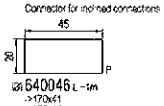


679105 IBI
679135 IDI



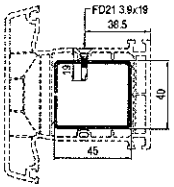
677104 IBI
677134 IDI

Connector for inclined connections



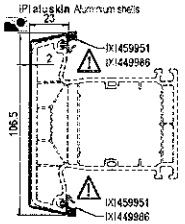
IBI 640046 L = 1m
->170x41
->170x44

IFI Reinforcements ( ) = lx



(6.0) 249034 s=1.25
(9.1) 249035 s=2.0

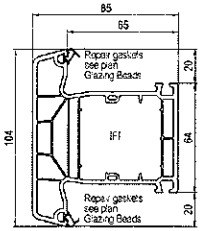
IPI aluskin Aluminium shells



289343 (CL)
SL 150mm
AU 292mm

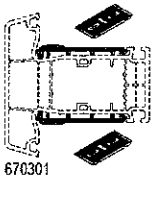
IOI Mounting accessories
Drilling jig

670900
-> IBI 677104 679105
-> IDI 677134 679135



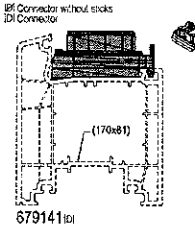
170x44 Transom
->170x81

IAI Spacer

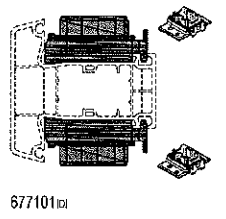


670301

IBI Connector without sticks
IDI Connector

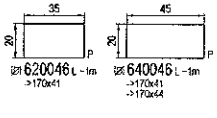


679141 IDI



677101 IDI

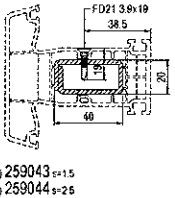
Connector for inclined connections



IBI 620046 L = 1m
->170x41

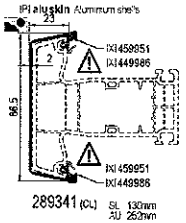
IBI 640046 L = 1m
->170x41
->170x44

IFI Reinforcements [ ] = lx

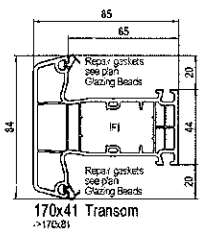


(3.8) 259043 s=1.5
(5.6) 259044 s=2.5

IPI aluskin Aluminium shells

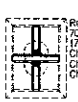


289341 (CL)
SL 130mm
AU 252mm



170x41 Transom
->170x81

Refer to manual "IDEAL 7000" for further details on 170x41, 170x44 in Chapter 02 D Chapter 03 J Chapter 09 H



Refer to manual "IDEAL 7000" for further details on 170x41, 170x44 in Chapter 02 D Chapter 03 J Chapter 09 H

Refer to manual "Additional Profiles / Accessories" in Chapter 05 D Connectors

Seal screw heads in the horizontal bottom rebate

chapter 02 Overview page 03

02A Profiles and Accessories

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NOTE: Assembly sequence and details on component parts according to assembly plan!

170x81 Sash
170x44 Transom
170x41 Transom

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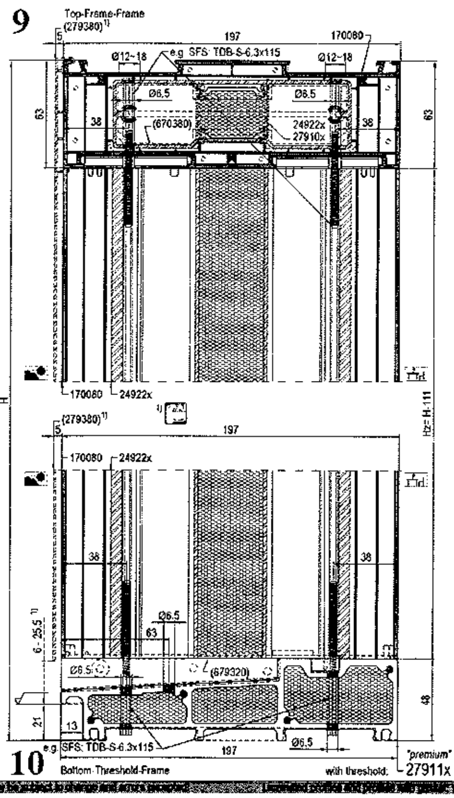
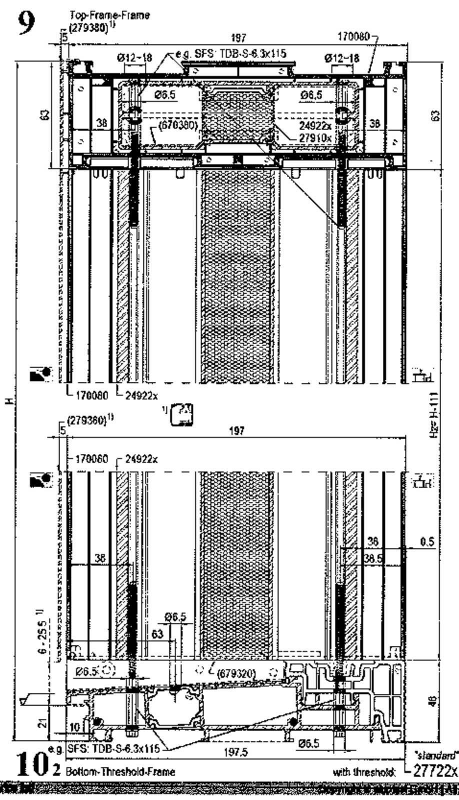
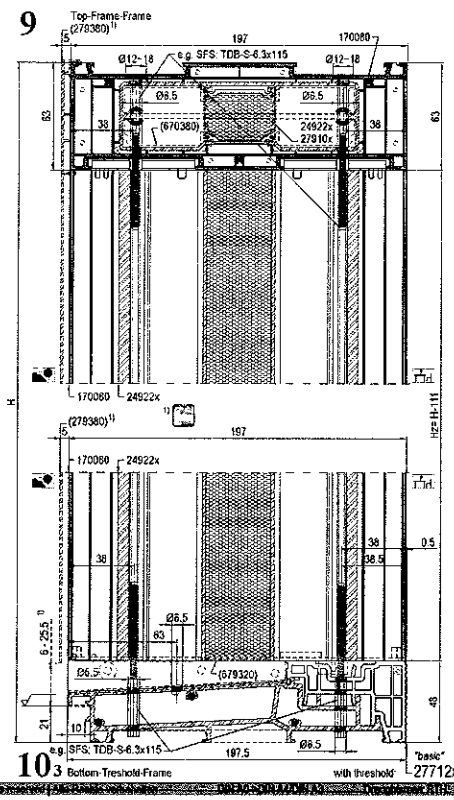
Lift-and-slide door 85mm







Horizontal deduction dimensions			Widths
	Schema A / Schema D	Schema C / Schema F	
A=	B-156	(B/2)-85	2 sashes
B=	B	B	Element
C=	(B/2)-199.5	(B/4)-164	Glass
D=	(B/2)-29.5	(B/4)+6	Sash 1)
E=	(B/2)-229.5	(B/4)-194	Sash clearance
F=	(B/2)-111.5	(B/4)-76	Overall clearance
G=	-	(B/2)-168	Overall clearance outside
Bz=	B-8	B-8	Threshold, frame
Ca=	-	-	Glass, deviant
Da=	-	-	Sash, deviant
Ea=	-	-	Sash clearance, deviant

Horizontal sections

A, B, C, ...

■ / ■ = Stopper left / right (where required)

Symbols

Schema A "v", Schema C "v" with aluminium shells

Finished Floor Level

Weather side / Outside

Room side / Inside

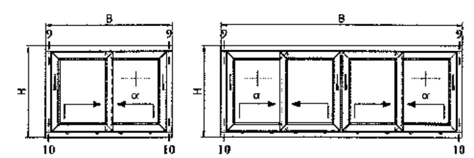
Hardware	Documents
GU	Gu-933 (44054)
Haulau	Atrium HS 300 (243733)
Maco	HS 300 aluplast (756728+756736)
Siegenia	HS-Portal 250 KF A0022 (HSde4021)

Vertical deduction dimensions		Heights
H=	H	Element
I=	H-296	Glass
J=	H-126	Sash 1)
K=	H-326	Sash clearance
L=	-	Exterior frame
M=	-	Interior frame
Hz=	H-111	Frame

1) Weld shrinkage allowance to be added!

Vertical sections

1, 2, 3, ...



chapter 03 Combinations — page

03 B General Dimensions 01

Section 9
Section 10
Section 9-10

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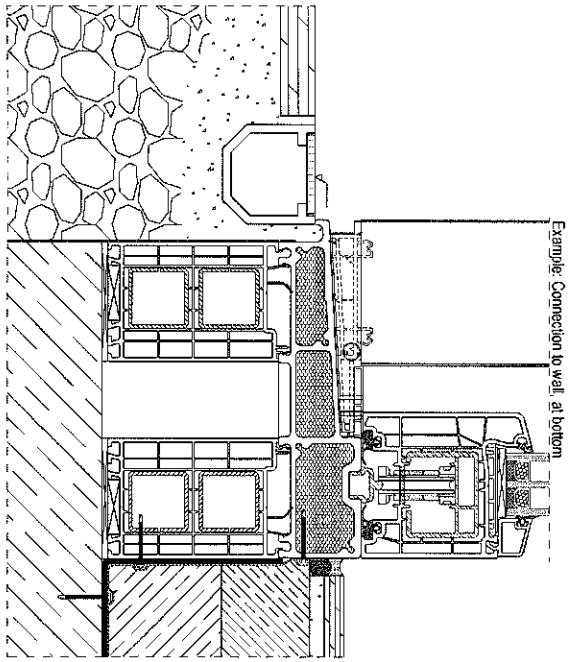
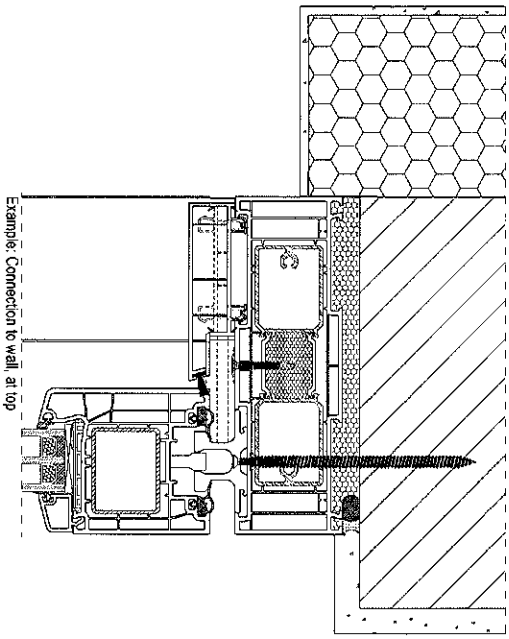
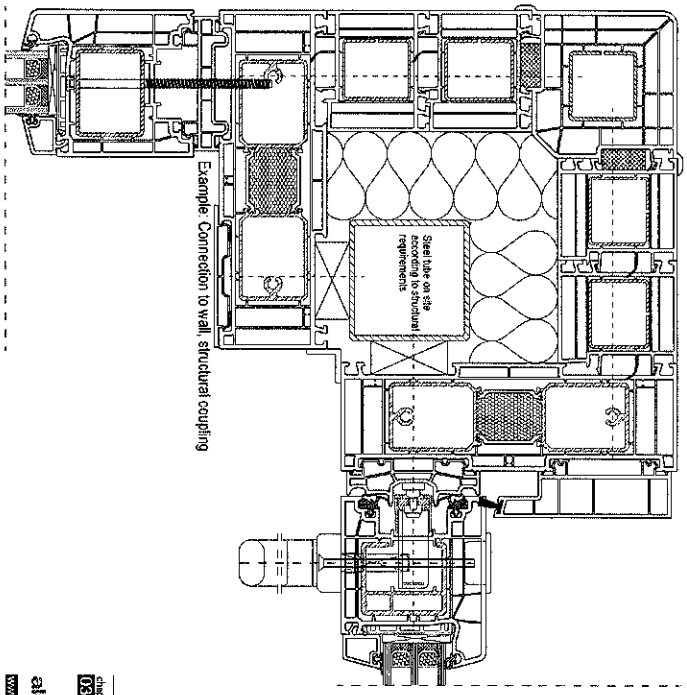
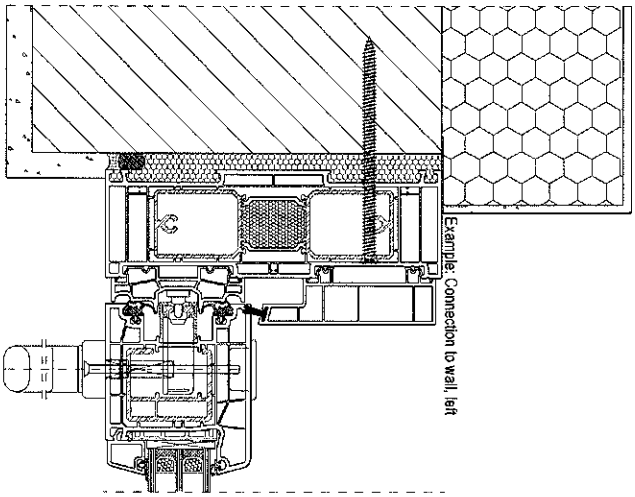
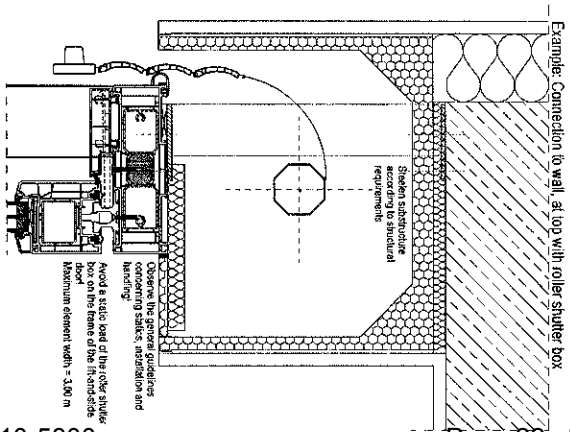
www.aluplast.net — Lift-and-slide door 85mm

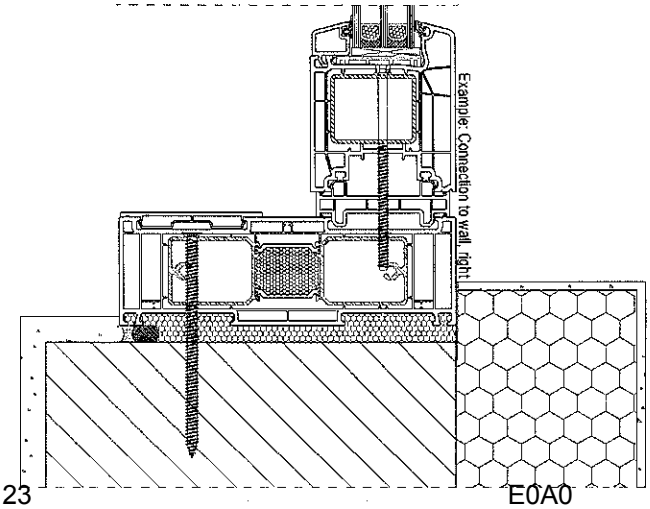




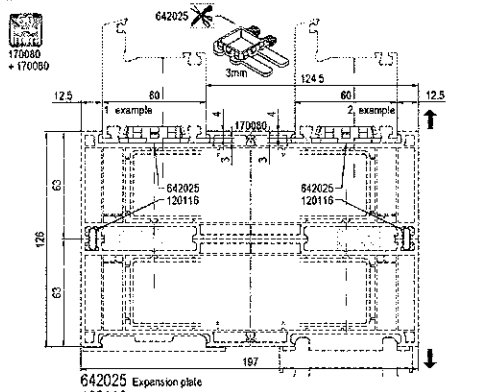




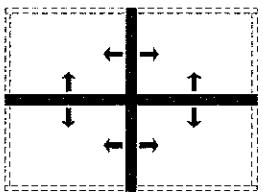


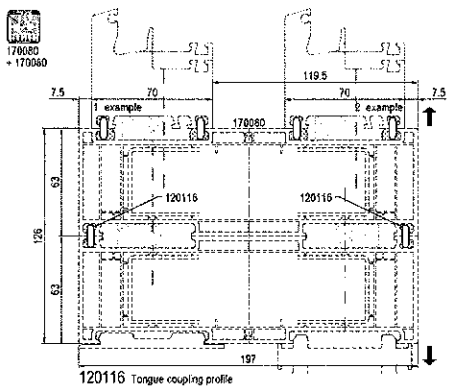


chapter 03 Combinations
03Z Connection to wall
plate 01
Examples
Left-hand-Slide door 85mm
www.aluplast.ncc

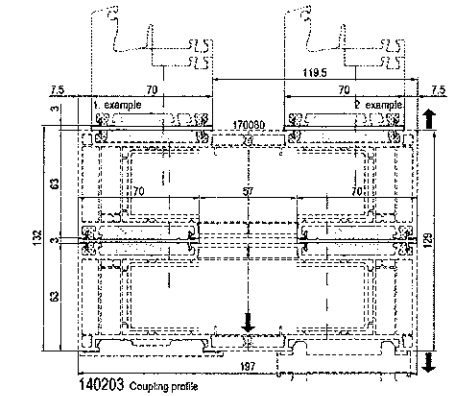


642025 Expansion plate
120116 Tongue coupling profile

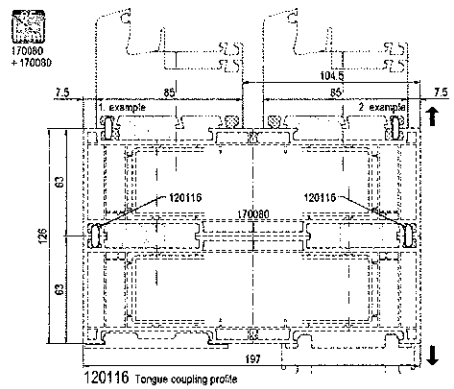




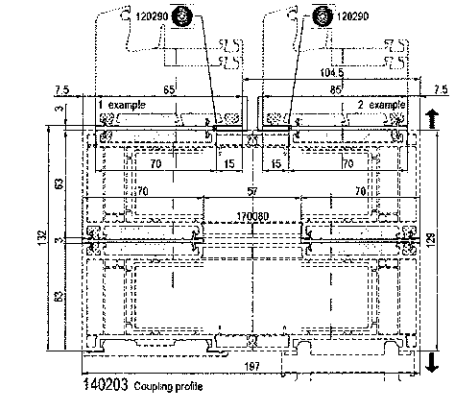
120116 Tongue coupling profile



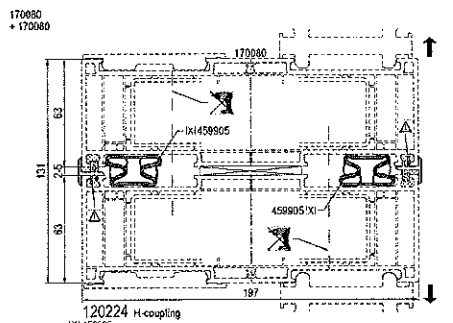
140203 Coupling profile



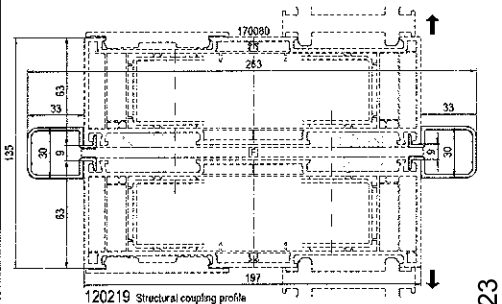
120116 Tongue coupling profile



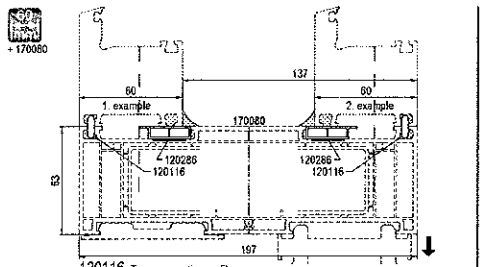
140203 Coupling profile



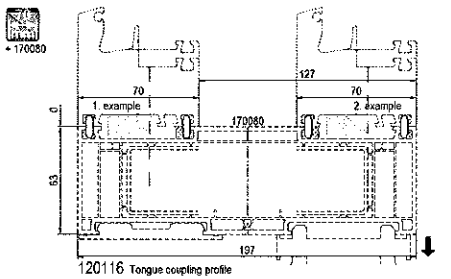
120224 H-coupling
IxI 459905



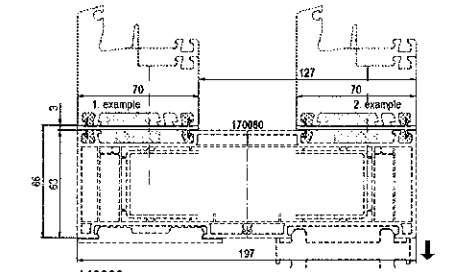
120219 Structural coupling profile
IF12 steel 200mm s=6.0mm



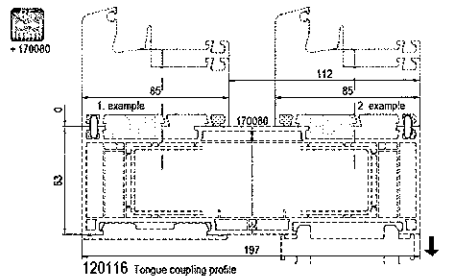
120116 Tongue coupling profile



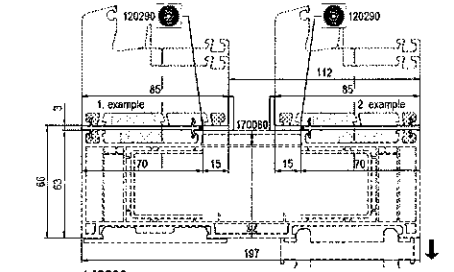
120116 Tongue coupling profile



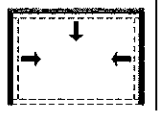
140203 Tongue coupling profile



120116 Tongue coupling profile



140203 Tongue coupling profile



Symbols -> Chapter 04 A

- Original shape cut
- No clip function (offset possible)
- Screw hand-tight
- Sealing required
- Can be used mirror-inverted
- foam inside

IPI Reinforcements
see plan Reinforcements

IHI Installation / mounting anchor

644299
IXI 742299, 782299
->Extension profile

642025
General
->Couplings

622333
IFI 249244
->140244

622041
IFI 249249
->120275
->140248

622902
IFI 249242
->140249
General
->Couplings

IPI aluskin Aluminium shells

SL 45mm AU 141mm (CL)	SL 70mm AU 197mm (CL)	SL 140mm AU 282mm (CL)
249335 ->120252 ->140205 ->180201	249360 ->120221 ->140207 ->180203	249310 ->140208 ->180204

IXI Gaskets

429320 bl ->120240	449340 bl 447340 pw ->140243	420250 wh 421250 br 423250 oc
459905 bl ->120224	742299 bl ->70mm ->Extension profile IHI 644299	782299 bl ->85 mm ->Extension profile IHI 644299

chapter 04 Additional Profiles
04 A Additional Profiles

page 01
Chapter 04 D Couplings
+ 170080 Frame

⚠ NOTE:
For additional sealing / screwing etc. please refer to manual Handling, chapter 08 C 3.

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Lift-and-slide door 85mm

E0A0