A guide to Smart Systems Punch Tooling
Operating Instructions and lists of common punch tool heads

Smart Systems **Punch Tools**

June 2007

Smart Systems

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Punch Tooling Overview

ACIP911 Pneumatic Base Unit

The base unit contains a central pneumatic piston which actuates a central Ram. Punch tool heads sit ontop of this base unit. Base part code ACIP911, some heads contain an integral ram and do not require a base unit.

Fig1: **ACIP911 Base**

Punch Tool Heads

Punch tool heads are specially developed for each system to provide cut-outs for commonly used prep details such as drainage and mechanical corner joints. Refer to the appendix for a listing of common punch tools.

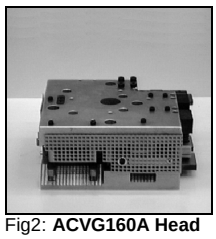

Fig2: **ACVG160A Head**

Punch Tool Table

Punch tool tables are available to securely mount punch tool bases. ACIP903B single mounting as shown or ACIP904B double mounting for two tools next to each other.

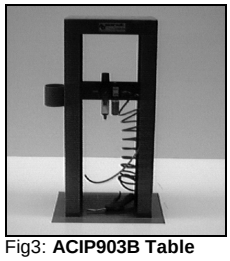

Fig3: **ACIP903B Table**

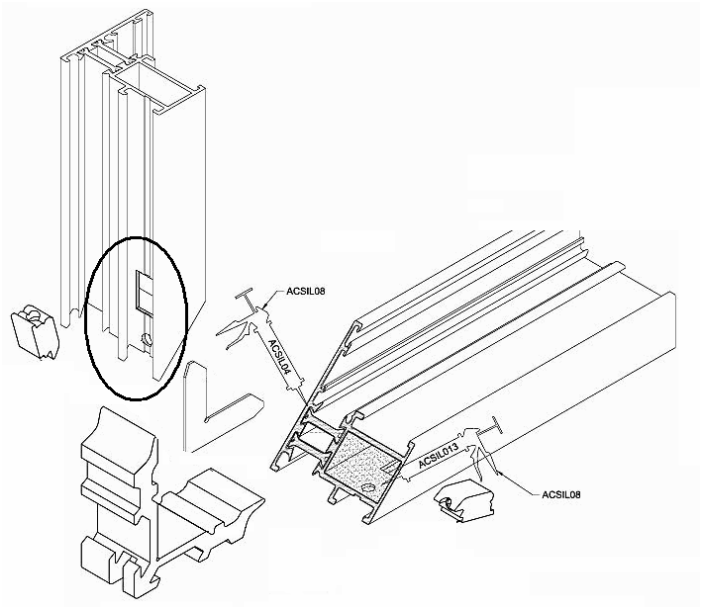

Fig3: **IN010 Corner Cleat Prep**

Getting Started

1. Installing the base unit

1.1 Securely fix the base unit to a standard stand or to a suitable bench using adequate fixings.

1.2 Connect the base to a suitable air network which carries oil lubrication and has the facility to regulate the pressure. Use the connectors provided and do not damage or cut the pipe work.

1.3 Using the regulator to adjust the pressure to approximately 7 bars.

1.4 Once connected, test the tooling is working correctly by pressing down on the button/foot pedal, hold for a couple of seconds and then release.

2. Installing Tooling Heads

2.1 Unscrew the central ram from the base unit and ensure that the seat of the base unit is clear of debris.

2.2 Carefully lift and place the tooling over the central ram of the base unit.

2.3 Replace the screw head and hand tighten, do not over tighten.

2.4 Once the head is attached, test the tooling is working correctly by pressing down on the button/foot pedal, hold for a couple of seconds and then release.

Operation Procedures

3. Normal Operation

3.1 Ensure that the waste from the previous punch is not jammed within the tooling and that all positions are clear of debris. Clean any debris with air line and/or wire brush.

3.2 Only punch one section in a single operation.
Insert section into the tool until it reaches the stop actuate the Punch Tool to punch, then remove the section.

3.3 Lubricate punches (with recommended lubricant only) every 10 - 15 operations or as necessary

4. Essential Weekly Maintenance

4.1 Check air hose connections for any leakages

4.2 Ensure fixing bolts have not worked loose and tighten as necessary

4.2 Check, bleed and clean water filter cartridge as required

4.3 Check lubricator oil level and replenish as necessary

General Notes:

1. Do not glue or silicone the sections before using any punch tool
2. Do not force or over-tighten screw head to ACIP911 as this may cause damage
3. Do not use WD-40 or silicone based lubricants.

Safety Notes:
Always ensure that the air supply is disconnected before performing any cleaning or maintenance that requires reaching into the working parts of the tooling.

Take care when handling tooling – don't lift more than you can safely manage.
If in doubt get help before lifting any heavy tooling.

IF IN DOUBT, ASK.

ETC/ECD : Alitherm

Description	Punch Tooling	Page
Alitherm 55 Window [1+2] Corner ETC110 ETC112 ETC114 ETC119, ETC122,ETC120 ETC125 [3+4] Transom ETC131, ETC135	**ACET914** + ACIP911 Base	**A1**
Alitherm 55 Window (Double Ovolo) [1+2] Corner ETC116 ETC126 [3+4] Transom ETC136	**ACET927** + ACIP911 Base	**A2**
Alitherm 47 Window Windows are crimp only and do not need any punch tooling	**N/A**	**-**
Alitherm door [1] Corner ETD010 (and ETC124 Alitherm 55 Window) [2] ETD014, ETD018 [3+4] ETD20	**ACET922** + ACIP911 Base	**A3**

ECC/ECD : Duotherm

Duotherm Wndow [1+2] Corner ECC88, ECC105	**ACET906** + ACIP911 Base	**A4**
Duotherm Residential Door [1] Styles ECD44, ECD46, ECD47 [2] Rail ECD45 [3] 55mm Styles ECD50, ECD51	**RCT002HSZ** + ACIP911 Base	**A5**

IN : Intruder

Intruder Windows and Doors [1+2] IN010,IN020,IN021 [3+4] IN017,IN022 [5] IN045 [6] IN030	**ACIN912** + ACIP911 Base	**A6**
Intruder Windows and Doors IN018, IN024, IN122	**MA40** No Base needed	**A6**

VL : Visoline

Visoline windows and doors [1] Corner Cleat VL1#, VL2#, VL3# [1+2] VL19,VL119 [3] Transom Hole VL10,VL11,VL18,VL30,VL31,VL35,VL36,VL130	**ACVL167** + ACIP911 Base	**A7**
Tilt Turn Handle Preps [1+2,3] Handle+LinkRods VL20,VL21,VL120,VL820,VL821 [4] Drainage Cap Cut-Out	**ACIP913** + ACIP911 Base	**A8**

IP : Imperial

Imperial Windows and Doors [1] Corner Cleat IP010, IP011, IP012, IP110, IP111, IP112, IP114, IP115 [2] Corner IP020, IP021, IP023, IP030, IP031, IP032 [3] Transom , IP030, IP032, IP035, IP110, IP111, IP112	**ACIP912** + ACIP911 Base	**A10**
Imperial Flag Hinge Door [5] IP024-IP025 Corner Bracket IP624 Pin Holes	**ACIP913** + ACIP911 Base	**A11**

RV : Reversible

Reversible Windows [1] Corner Cleat RV010 [2] Corner RV021 [3] Drainage RV070 [4] Drainage RV010	**ACRV912** + ACIP911 Base	**A15**

SH : Shopline

Description	Punch Tooling	Page
Shopline [1+2] Top and Side Holes for Top Rail SH120 [2+3] Hinge and Lock SH020 [5] Rails Cut Out SH120, SH027 SH033 SH032 [6] Midrail SH032, SH032, SH034 [7] Hine Adjustment SH020 [8] Bottom Pivot SH027	**ACSH912** + ACIP911 Base	**A13**
Shopline Anti Finger Trap [1] Side Cut Out SH120 [2] Closer yop hole SH020, SH025, SH039 [3] Hinge and Lock SH019, SH020, SH021, SH022, SH025, SSH026, SH037 SH038 SH039 SH040 [4] Hinge Style Cut out for closer SH020, SH025, SH039 [5] Anti Finger Trap Style CH036,SH037	**ACSH913** + ACIP911 Base	**A14**

SC : SC Frame

Description	Punch Tooling	Page
SC Frame SC Frame is square cut - no punch tooling required for SC Frame	**N/A**	

MC : MC Wall

Description	Punch Tooling	Page
Drainage [1] Drainage DK154 [2] Drainage MC052, MC130, MC131, MC053 [3] Square Joint , MC040, MC045, MC140	**MA40**	**A16**
MC Wall [1] Transom Cut Outs MC130, MC131, MC132 [2] Cill cut outs MC014, MC015, MC016, MC017, MC018, MC020, MC024, MC114	**KCW3126SS** + ACIP911 Base	**A17**

SL : Slide

Description	Punch Tooling	Page
Slide [1] Handle Cut Out SL020, SL120, SL220 [2] Rail SL020, SL030,SL031, SL032, SL120 SL220 [3] Embedding SL021 SL033 [4] Connecting Bracket SL021 + SL033 [5] Pulley SL021 [7] Rail SL031 [8] Sealing Member SL031	**ACSL153A** No Base needed	**A18**
Slide [1] Corner Cleat SL010,SL013,SL110,SL310 [2] Drainage Face SL010, SL013 , SL110, SL310 [3] Drainage Centre SL010, SL013, SL110, SL310	**ACSL153B** No Base needed	**A19**

SL+ : Slide Plus

Description	Punch Tooling	Page
Slide Plus [1+2] Handle SL1020 SL1120 [3] Hasp SL1020 SL1120	**ACSL901A** No Base Need	**A20**
Slide Plus [1+2] Handle SL2020 SL2120 [3] Hasp SL2020 SL2120	**ACSL901A-1** No Base Need	**A20**
Slide Plus [1] Rail Passage SL1020 SL1120 [2] T Connection SL1021 + Sl1033 [3+4] Rail clearance SL1120 [5] Drainage SL1010 SL050 [6] Square Coupling SL1010	**ACSL901B** No Base Need	**A20**

SLc : Slide Cold

Description	Punch Tooling	Page
Slide Cold [1] Rail Passage SL820, SL8120 [2+3] Rail passage SL830, SL831 [4] Embedding SL821, 833 [5+6] Sealing SL831	**ACSL853A** No Base Need	**A21**
Slide Cold [1] Corner Cleat SL81, SL8310 [2] Drainage SL810	**ACSL853B** No Base Need	**A21**

Visoglide

Description	Punch Tooling	Page
Visoglide Preps [1+2] Interlock Cut Out VG33 [2] VG30,VG130,VG830 [3+4] VG30,VG31,VG33,VG130,VG830,VG131 [5] Transom VG22 [6] Corner VG20, VG120, VG820 [7] Corner VG10, VG13, VG110, VG810	**ACVG160A** + ACIP911 Base	**A22**
Visoglide Drainage [1+4] Drainage VG10, VG13, VG110 [2+3] Drainage VG10, VG13, VG110	**ACVG160B** + ACIP911 Base	**A23**
Visoglide Deep Sections [1+2] VG210, VG310	**ACVL167** + ACIP911 Base	**A23**

Superglide

Description	Punch Tooling	Page
Superglide Preps [1+2] Rail passage SG030, SG031, SG033 [3] Leg Removal SG030 [4] Corner Cleat SG010, SG013, SG210 [5] Coner Cleat SG020	**ACSG160A** + ACIP911 Base	**A24**
Superglide Drainage [1+2] Drainage SG010, SG013, SG210	**ACSG160B** + ACIP911 Base	**A24**

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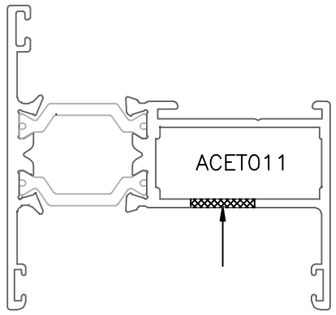
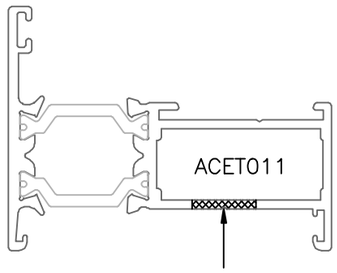
Alitherm 55 Window Punch Tooling

OUTERFRAME

ETC110



ETC112



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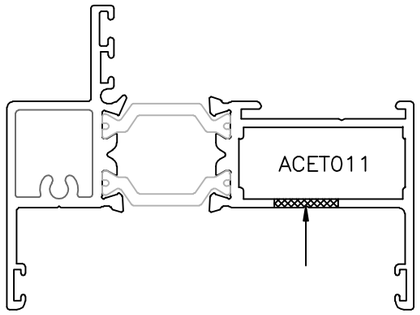

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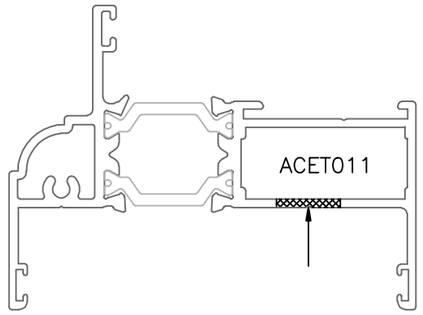
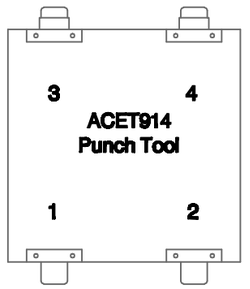


PT: ACET914 Positions: 1 & 2
Corner Cleat

ACET914 Punch Tool

Positions 1 & 2: Corner cleat for ETC110, 112, 114, 119, 120, 122 & 125

Positions 3 & 4: Transom cut-out ETC131 & 135

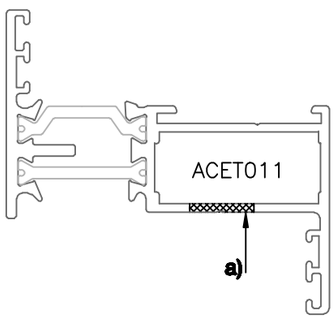


ACET922 Punch Tool

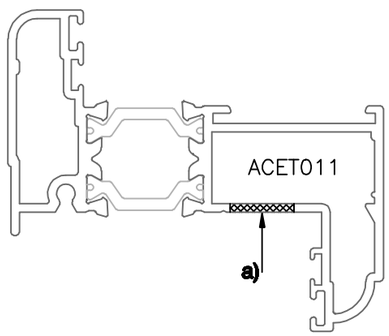
Position 1: Corner cleat for ETC124

VENT

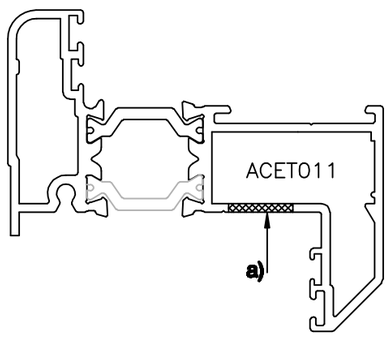
ETC122



ETC120



ETC125



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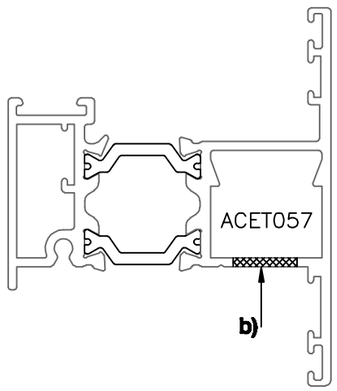
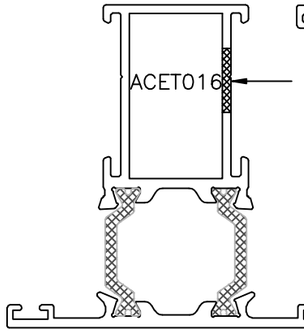


a) PT: ACET914 Positions: 1 & 2
Corner Cleat

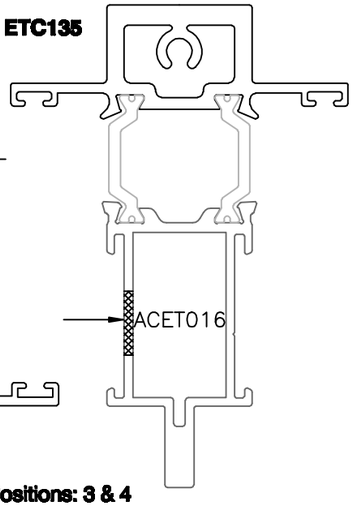
b) PT: ACET922 Position: 1
Corner Cleat

TRANSOM

ETC131



ETC135



PT: ACET914 Positions: 3 & 4
Transom Prep

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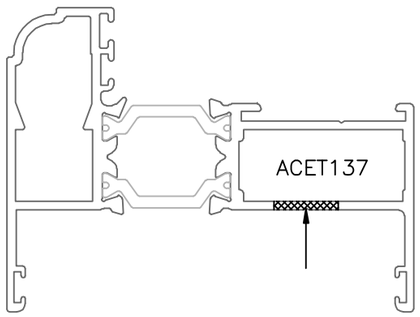
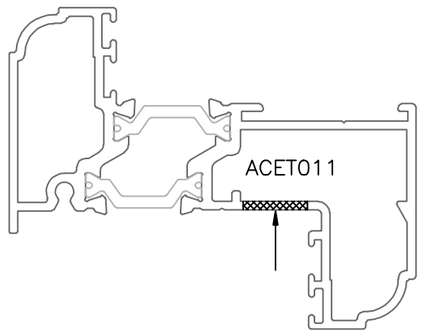
Alitherm 55 New Window Punch Tooling

OUTERFRAME
ETC116



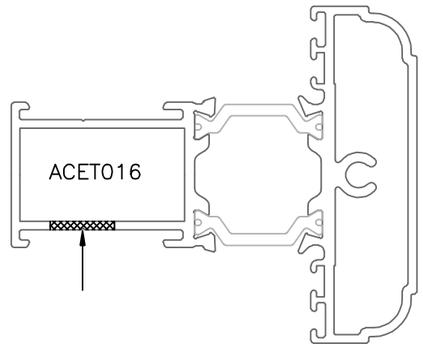
PT: ACET927 Positions: 1 & 2
Corner Cleat

VENT
ETC126



PT: ACET927 Positions: 1 & 2
Corner Cleat

TRANSOM
ETC136

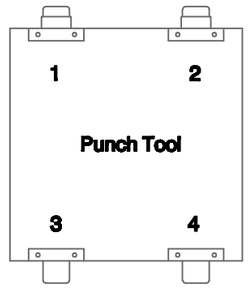


PT: ACET927 Positions: 3 & 4
Transom Cut-out

ACET927 Punch Tool

Positions 1 & 2: Corner cleat for ETC116 & 126

Positions 3 & 4: Transom cut-out ETC136



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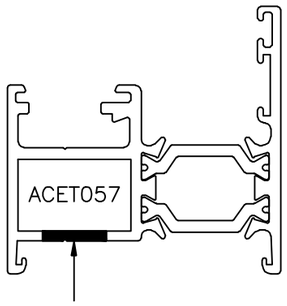
Alitherm 47 Door Punch Tooling

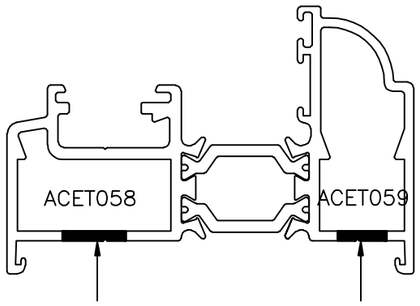
OUTERFRAME

ETD010



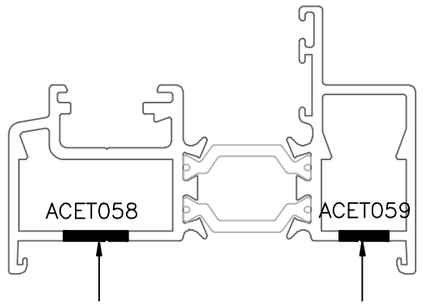
PT: ACET922 Position: 1
Corner Cleat

ETD014



PT: ACET922 Position: 2
Corner Cleat

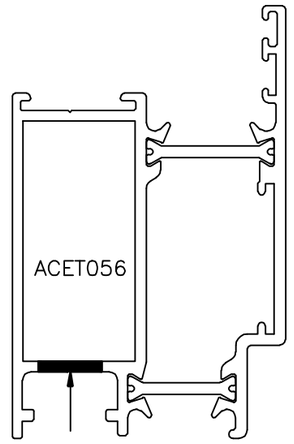
ETD018



PT: ACET922 Position: 2
Corner Cleat

VENT

ETD020



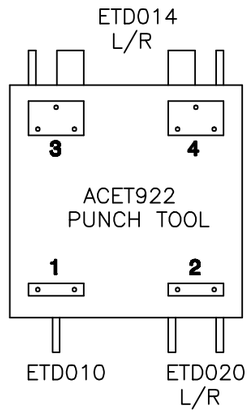
PT: ACET922 Positions: 3 & 4
Corner Cleat

ACET922 Punch Tool

Position 1: Corner cleat for ETD010

Position 2: Corner cleat for ETD020

Position 3 & 4: Corner cleat for ETD014



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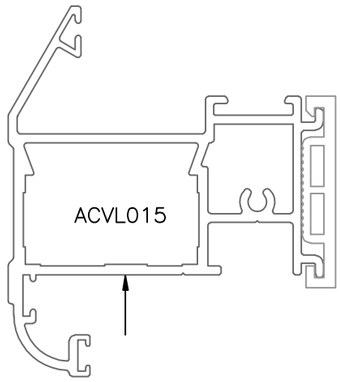
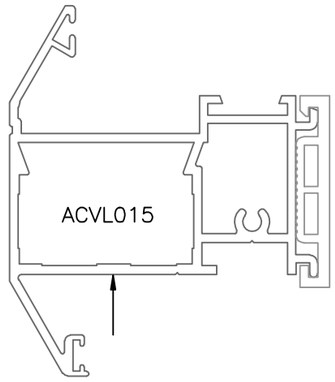
Duotherm Window Punch Tooling

Vent

ECC88



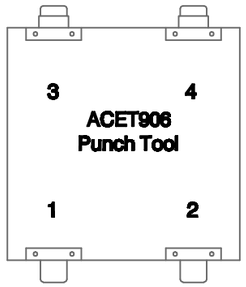
ECC105



PT: ACET906 Positions: 1 & 2
Corner Cleat

ACET906 Punch Tool

Positions 1 & 2: Corner cleat for ECC88N & 105



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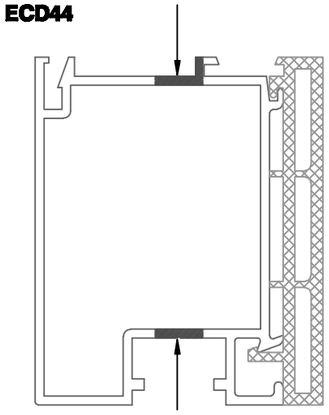
Duotherm Door Punch Tooling

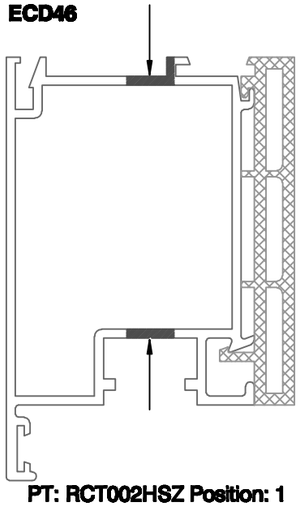
STILES

ECD44



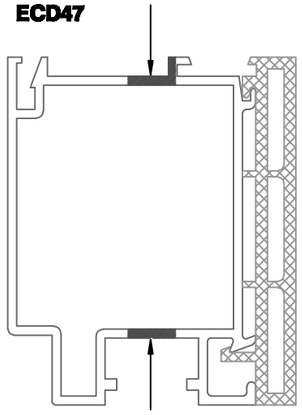
PT: RCT002HSZ Position: 1
Hole Punch

ECD46



PT: RCT002HSZ Position: 1
Hole Punch

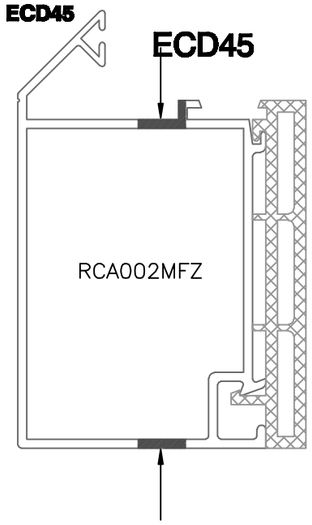
ECD47



PT: RCT002HSZ Position: 1
Hole Punch

RAIL

ECD45



PT: RCT002HSZ Position: 2
Hole Punch

RCT002HSZ Punch Tool

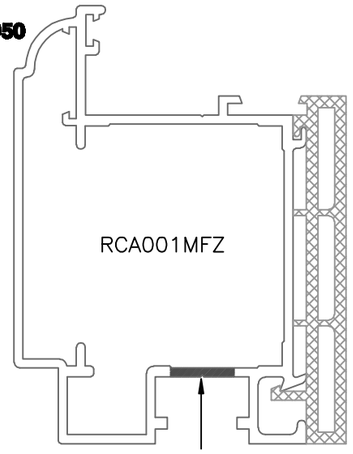
Position 1: Stile hole punch for ECD44, 46 & 47

Position 2: Rail hole punch for ECD45

Position 3: Corner cleat punch for ECD50 & ECD51

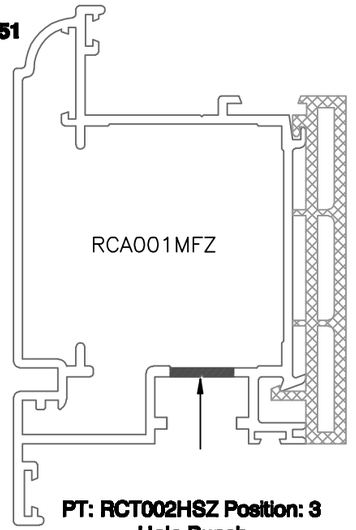
55mm STILES

ECD50



PT: RCT002HSZ Position: 3
Hole Punch

ECD51



PT: RCT002HSZ Position: 3
Hole Punch

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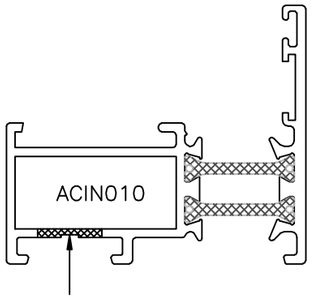
Intruder Window Punch Tooling

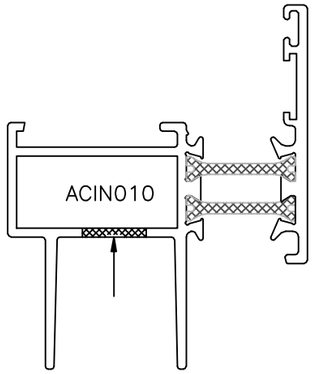
OUTERFRAME

IN010
Outer Frame



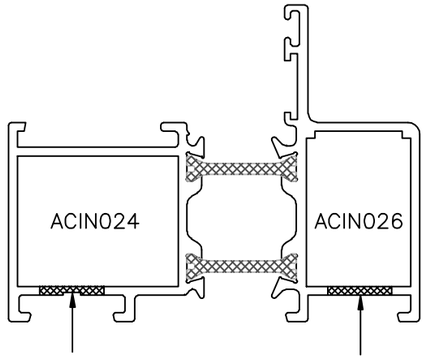
PT: ACIN912
Positions: 1 & 2
Corner Cleat

IN017
Outer Frame



PT: ACIN912
Positions: 3 & 4
Corner Cleat

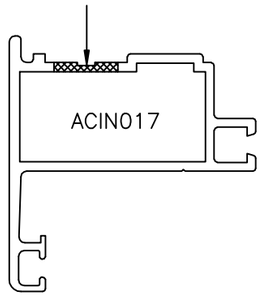
IN018
Outer Frame



PT: MA40
Position: Eurogrove
Corner Cleat

REVERSE ADAPTER

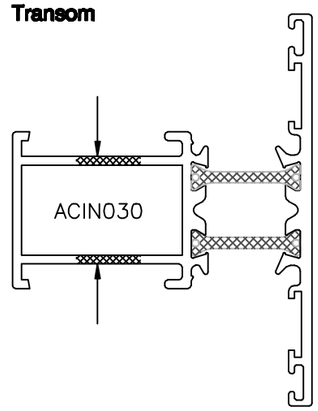
IN045
Reverse Profile



PT: ACIN912
Position: 5
Corner Cleat

TRANSOM

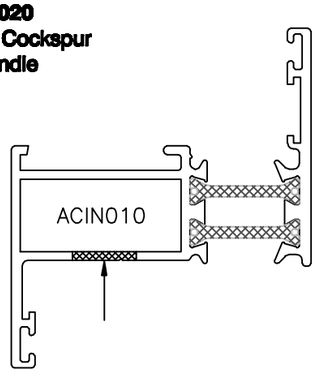
IN030
Transom



PT: ACIN912
Position: 5
Hole Punch

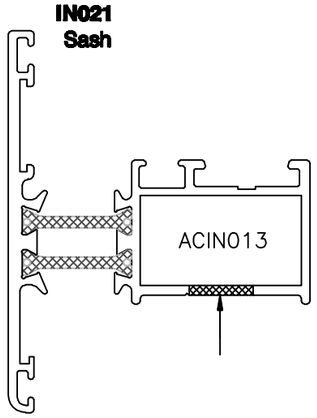
WINDOW VENT

IN020
Sash for Cockspur Handle



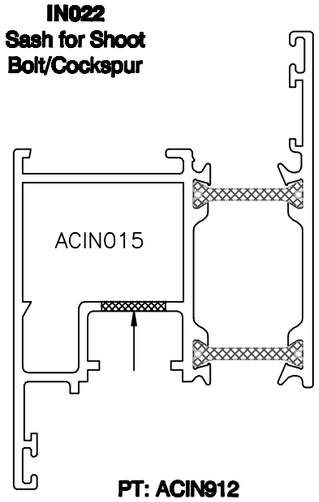
PT: ACIN912
Positions: 1 & 2
Corner Cleat

IN021
Sash



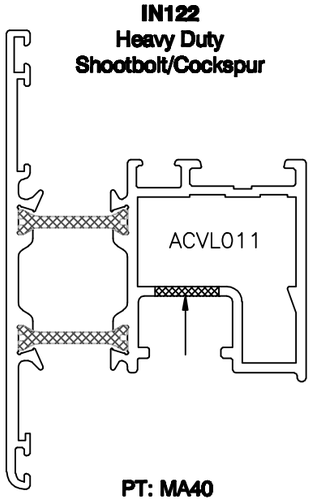
PT: ACIN912
Positions: 1 & 2
Corner Cleat

IN022
Sash for Shoot Bolt/Cockspur



PT: ACIN912
Positions: 3 & 4
Corner Cleat

IN122
Heavy Duty Shootbolt/Cockspur



PT: MA40
Position: Eurogrove
Corner Cleat

ACIN912 Punch Tool

Position 1 & 2: Corner cleat for IN010, IN020 & IN021

Position 3 & 4: Corner cleat for IN017 & IN022

Position 5: 'T' bracket for IN030 & Corner cleat for IN045

MA40 Punch Tool

Eurogroove position: Corner cleat for IN018 & IN122

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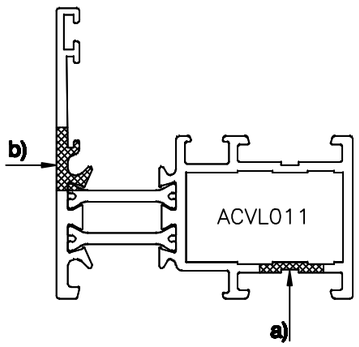
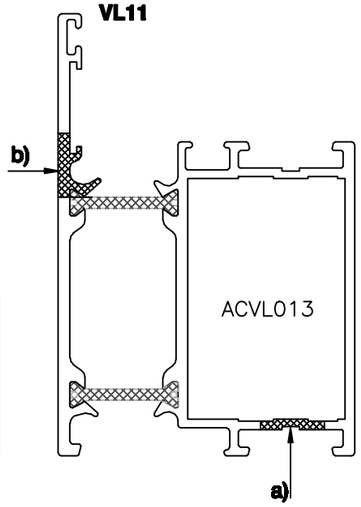
Visoline Punch Tooling

OUTER FRAME

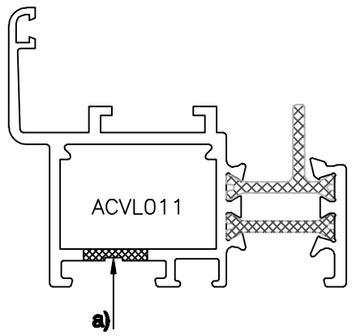
VL10



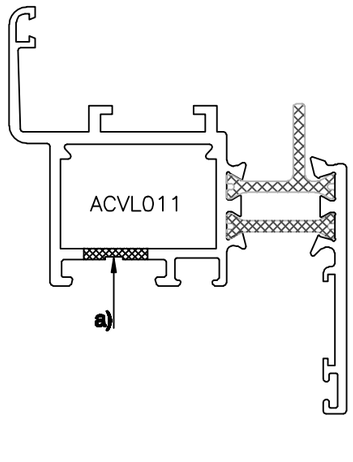
VL11



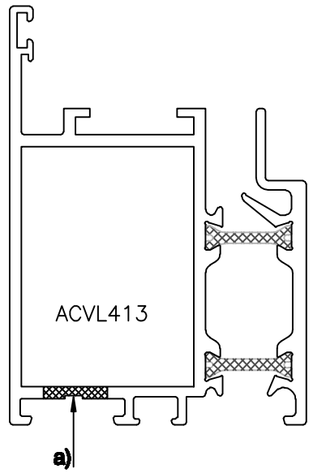
VL12



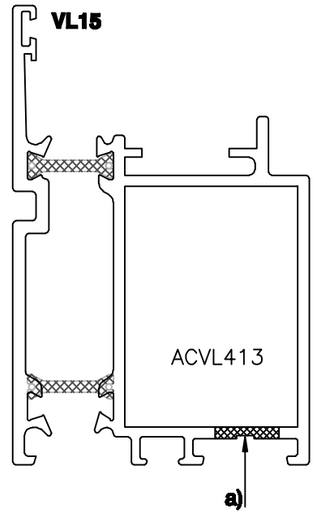
VL13



VL14

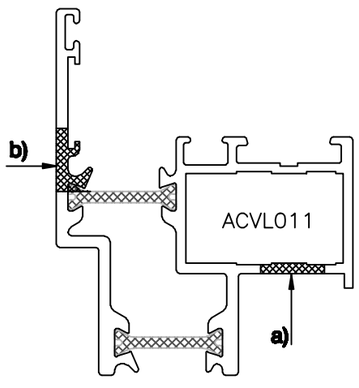


VL15

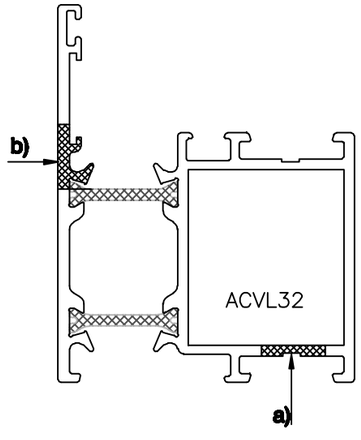


a) PT: ACVL167Position: 1
Corner Cleat
b) PT: ACIP913 Position: 4
Drainage Cap

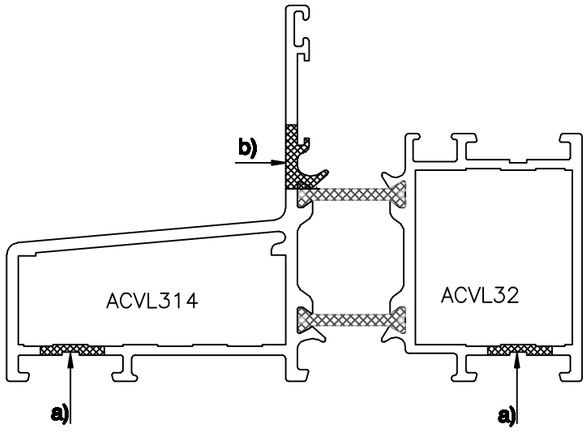
VL17



VL18



VL19



ACVL167 Punch Tool

Position 1: Corner cleat preperation for VL10, 11, 12, 13, 14, 15, 17, 18, 20, 21, 23, 24, 25, 26, 30, 31, 45, 130 & 140

Position 1 & 2: Corner cleat for VL19 & 119

Position 3: Transom hole for VL30, 31, 35, 36 & 130

ACIP913 Punch Tool

Position 1: Handle cut-out for tilt & turn & open in casement for VL20, 21, 120, 820 & 821

Position 2: Sash corner cut-out for link rod

Position 3: Link rod hole punch

Position 4: Drainage cap cut-out for VL10, 11, 17, 18 & 19

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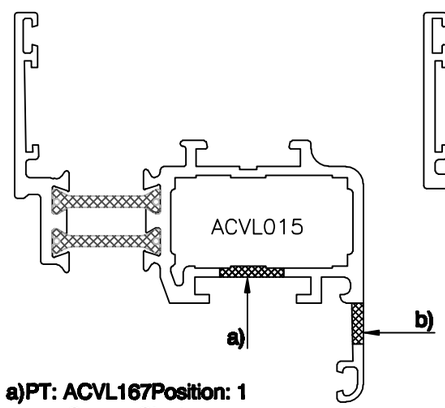
Visoline Punch Tooling

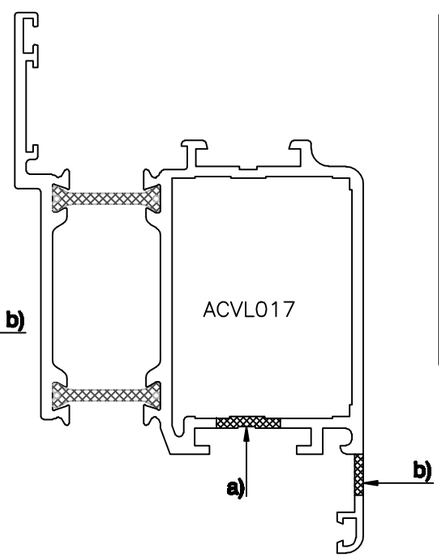
VENT

VL20

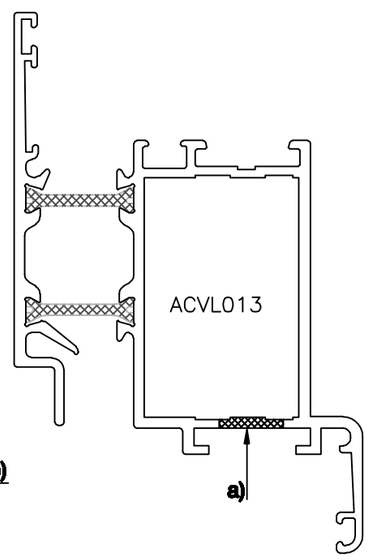


a)PT: ACVL167Position: 1
Corner Cleat
b)PT: ACIP913 Position: 1
Handle Cut-out

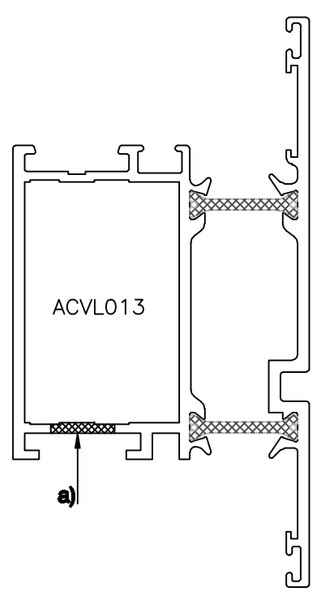
VL21



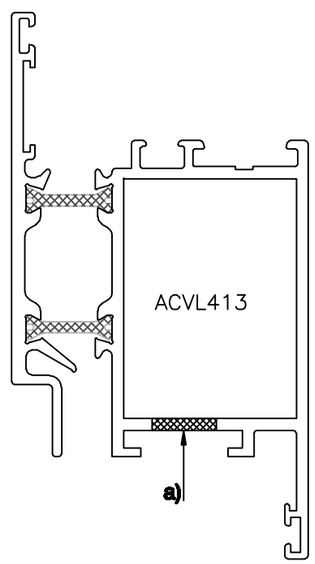
VL22



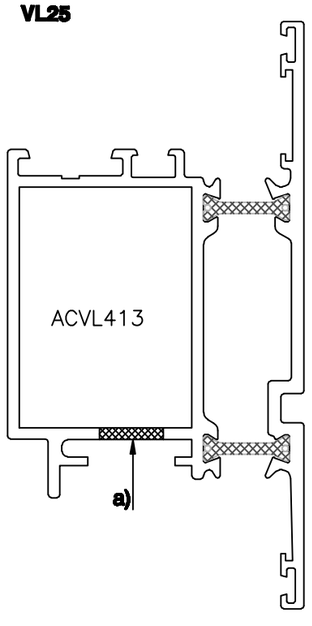
VL23



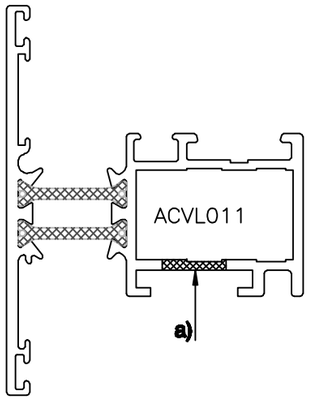
VL24



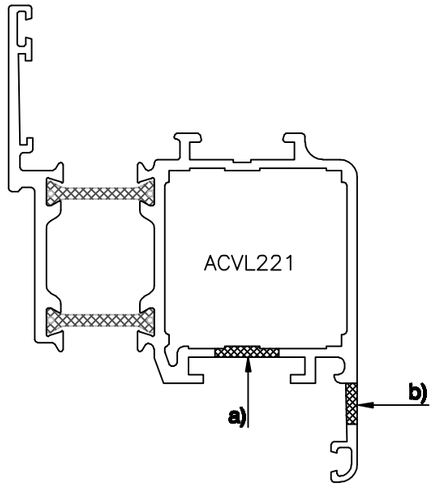
VL25



VL26

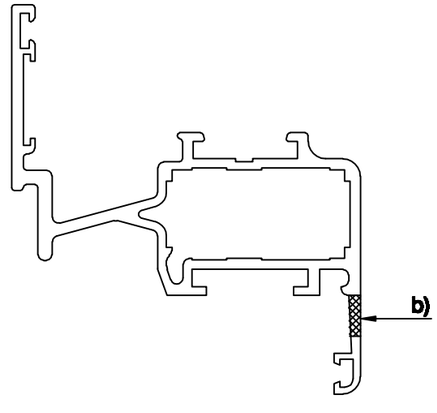


VL120

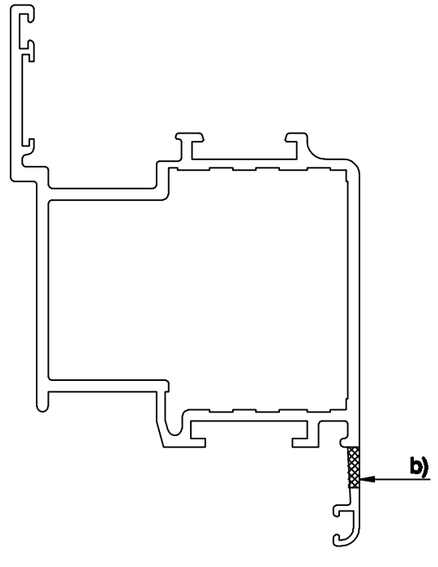


VENT (Non-thermally broken)

VL820



VL821



b)PT: ACIP913 Position: 1
Handle Cut-out

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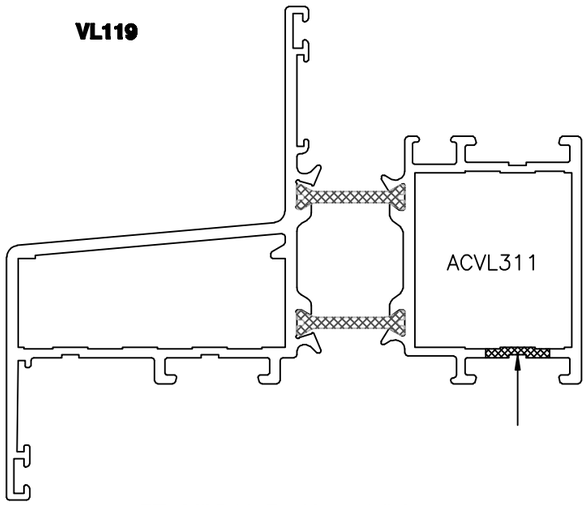
Visoline Punch Tooling

OUTER FRAME WITH CILL

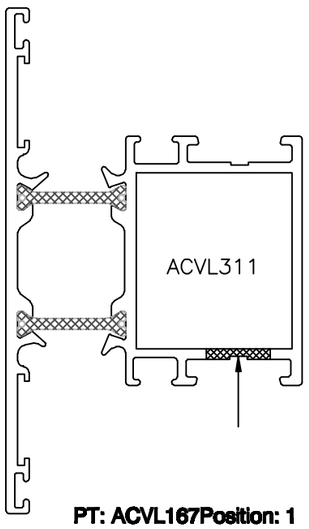
VL119



PT: ACVL167Positions: 1 & 2
Corner Cleat

LARGE TRANSOM

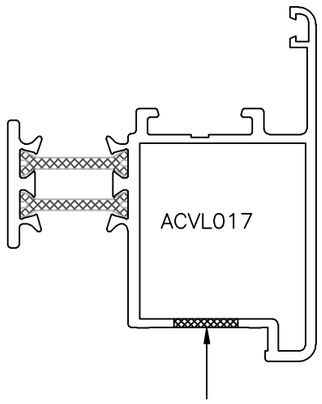
VL130



PT: ACVL167Position: 1
Corner Cleat

REVERSING PROFILE

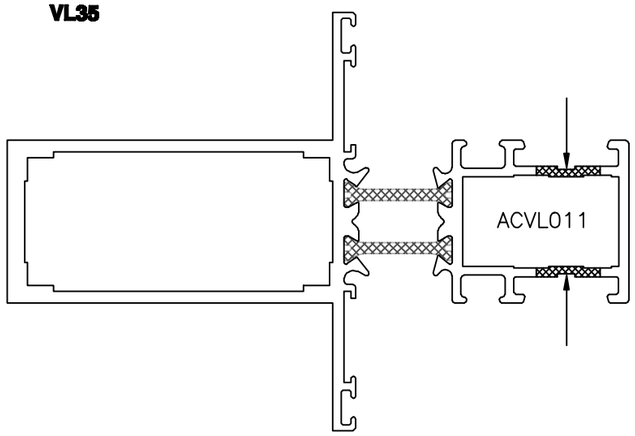
VL45



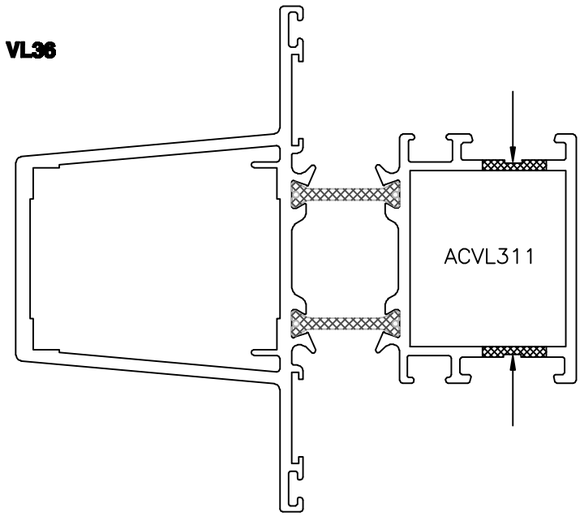
PT: ACVL167Position: 1
Corner Cleat

REINFORCED TRANSOM/MULLION

VL35



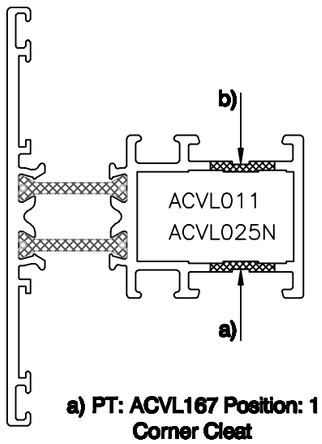
VL36



PT: ACVL167Position: 3
Transom/Mullion Hole

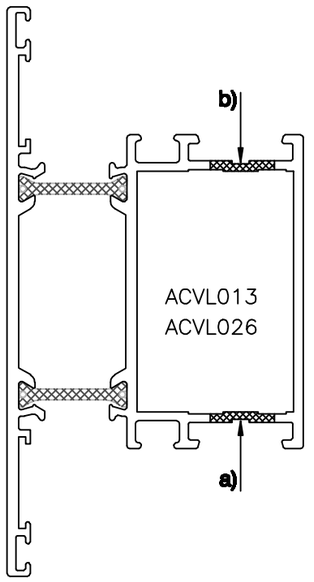
TRANSOM/MULLION

VL30



a) PT: ACVL167 Position: 1
Corner Cleat
b) PT: ACVL167Positions: 3
Transom/Mullion Hole

VL31



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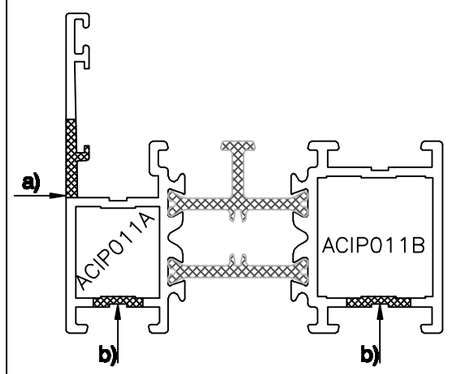
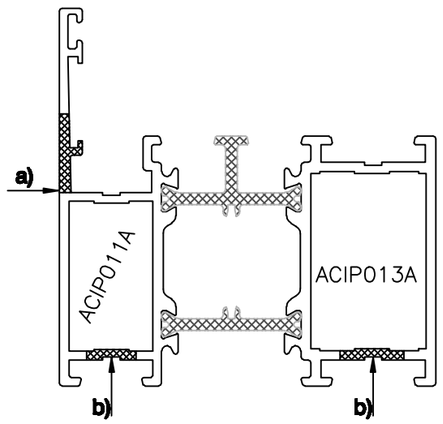
Imperial Punch Tooling

OUTER FRAME

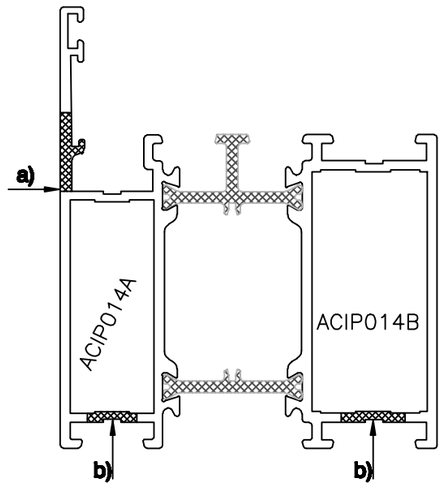
IP010



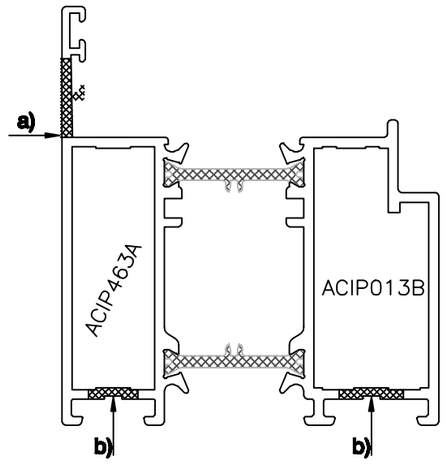
IP011



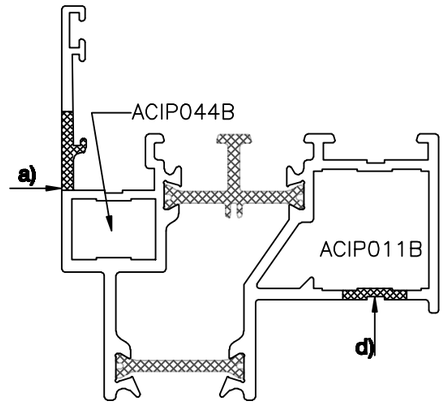
IP012



IP015

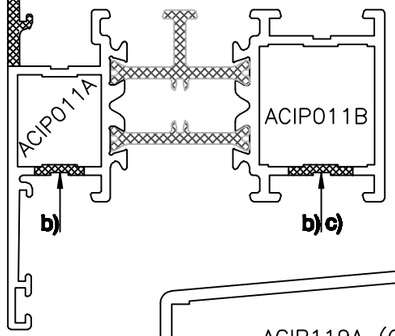


IP017

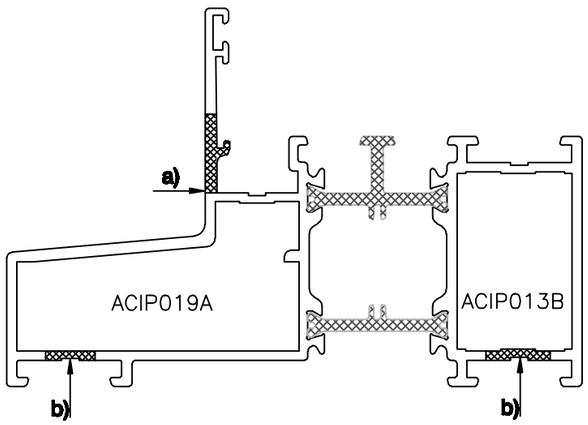


Note: Ensure IP017 is held in straight and central when punching for cleats.

IP110



IP019

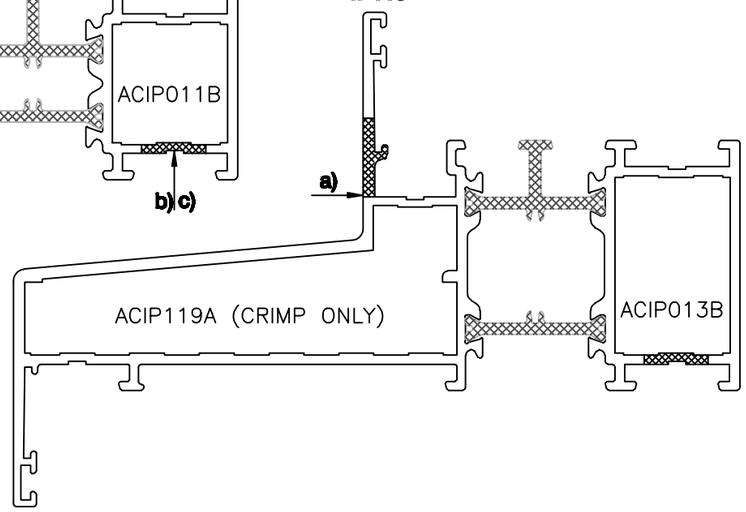


a) PT: ACIP913 Position: 4 Drainage Cap

b) PT: ACIP912 Position: 1 Corner Cleat

c) PT: ACIP912 Position: 3 Transom Holes

IP119



ACIP913 Punch Tool

Position 1: Handle cut-out for tilt & turn & open in casement for IP020, 021 & 023

Position 2: Sash corner cut-out for link rod

Position 3: Link rod hole punch

Position 4: Drainage cap cut-out for

ACIP912 Punch Tool

Position 1: Corner cleat for IP010, 011, -12, 110, 111, 112, 014 & 015

Position 2: Corner cleat for IP020, 021, 023, 030, 031 & 032

Position 3: Transsom holes for IP030, 031, 032, 035, 110, 111 & 112.

ACVL167 Punch Tool

Position 1: Corner cleat for IP017

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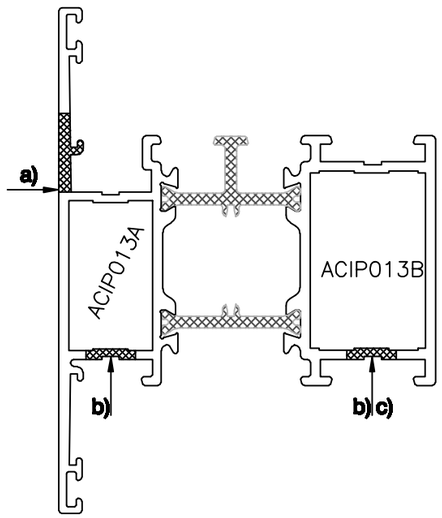
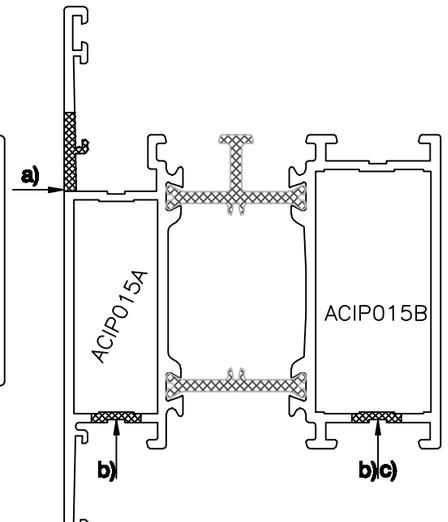
Imperial Punch Tooling

OUTER FRAME

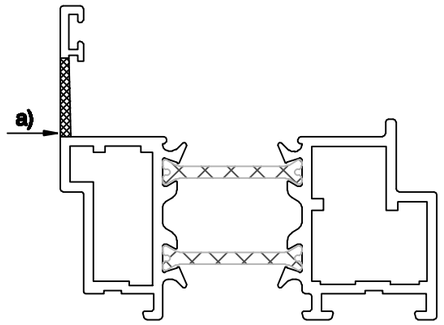
IP111



IP112

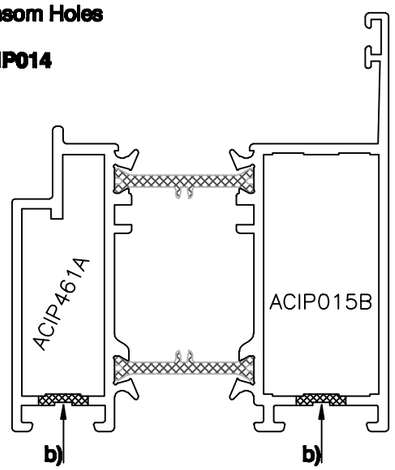


IP115



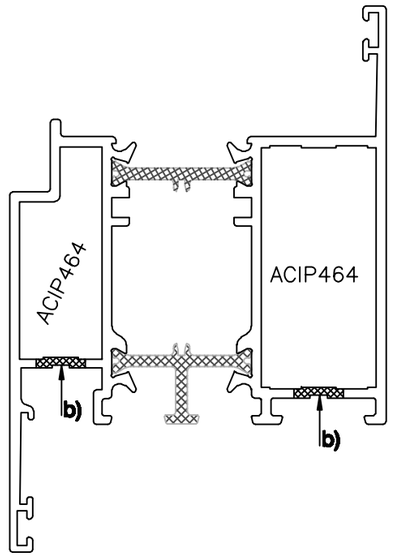
a) PT: ACIP913 Position: 4
Drainage Cap
b) PT: ACIP912 Position: 1
Corner Cleat
c) PT: ACIP912 Position: 3
Transom Holes

IP014

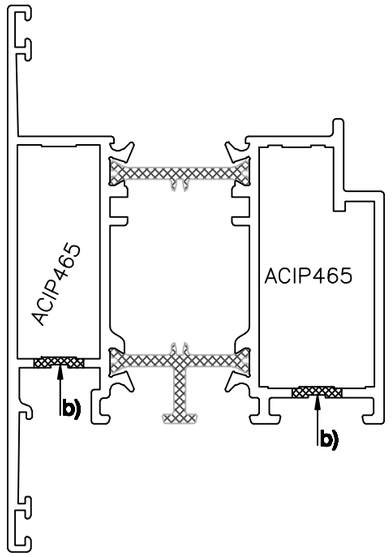


VENT

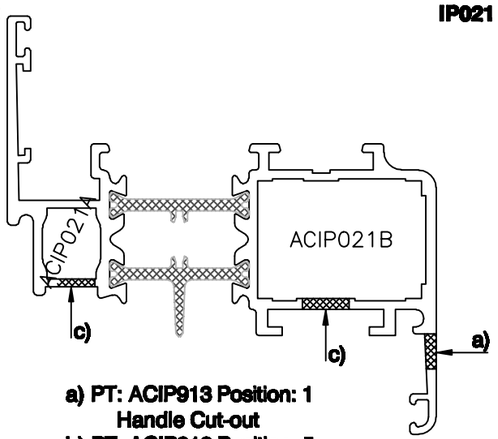
IP024



IP025

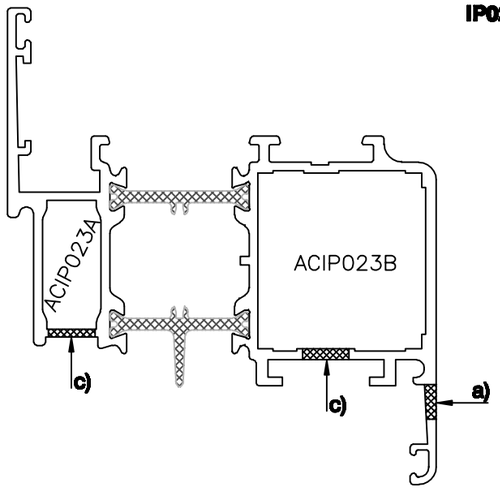


IP020

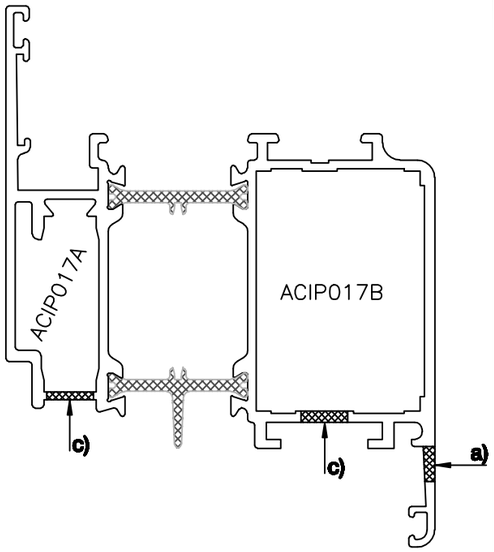


a) PT: ACIP913 Position: 1
Handle Cut-out
b) PT: ACIP913 Position: 5
Corner Bracket
c) PT: ACIP912 Position: 2
Corner Cleat

IP021



IP023



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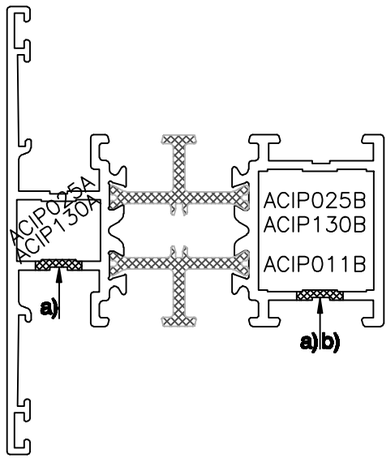
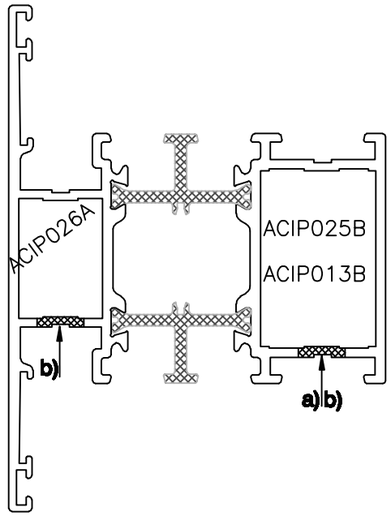
Imperial Punch Tooling

OUTER FRAME

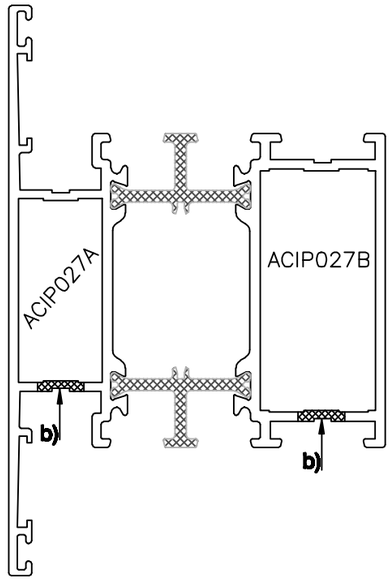
IP030



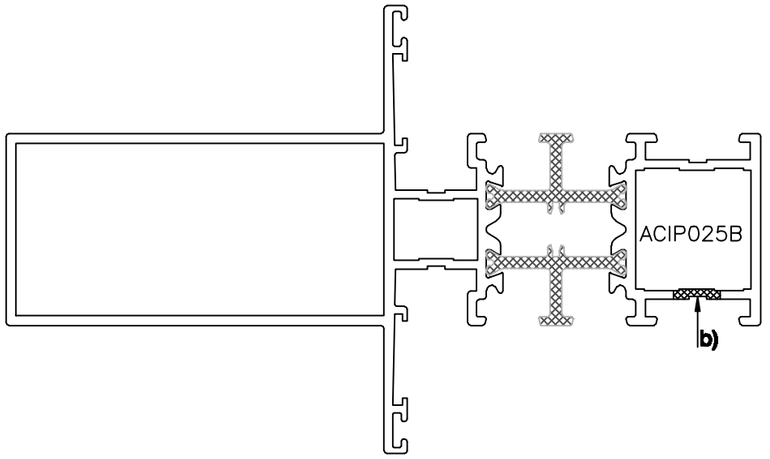
IP031



IP032



IP035



a) PT: ACIP912 Position: 3
Corner Cleat
b) PT: ACIP912 Position: 3
Transom Holes

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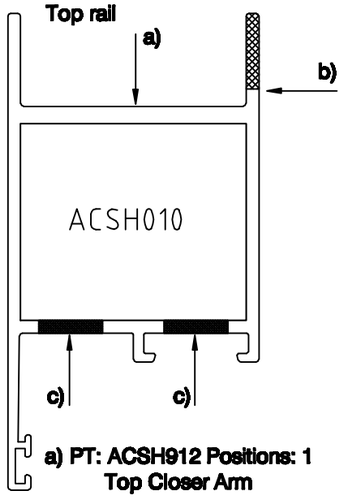
Shopline Punch Tooling

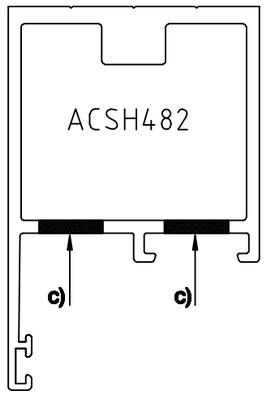
TOP RAILS

SH120
Top rail



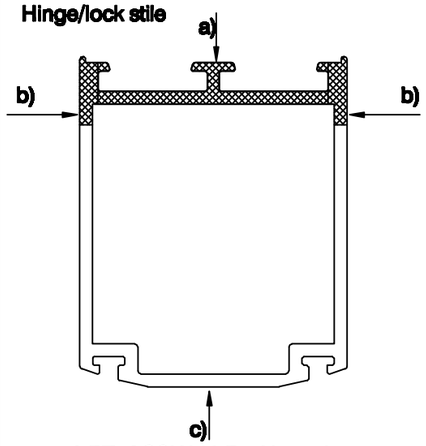
a) PT: ACSH912 Positions: 1
Top Closer Arm
b) PT: ACSH912 Positions: 2
Closer Side Cut-out
c) PT: ACSH912 Positions: 5
Cleat Holes

SH121
Top rail



STILES

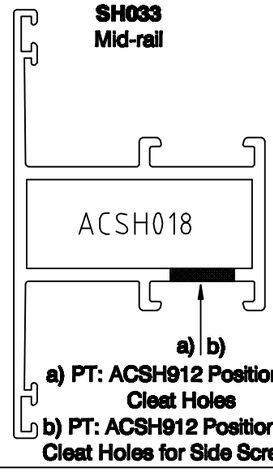
SH020
Hinge/lock stile



a) PT: ACSH912 Positions: 3
Hinge & Lock Stile Cut-out
b) PT: ACSH912 Positions: 4
Closer Plate Cut-out
c) PT: ACSH912 Positions: 7
Hinge Adjustment Hole

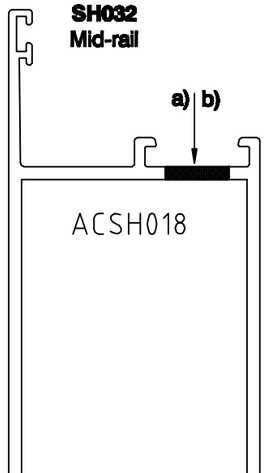
MID-RAILS

SH033
Mid-rail



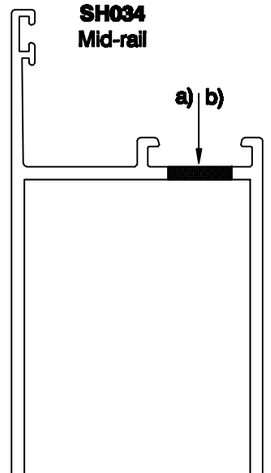
a) PT: ACSH912 Positions: 5
Cleat Holes
b) PT: ACSH912 Positions: 6
Cleat Holes for Side Screens

SH032
Mid-rail



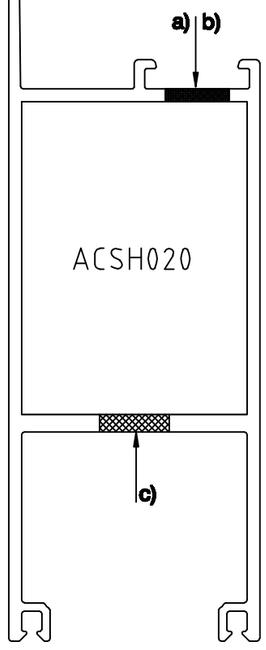
a) PT: ACSH912 Positions: 5
Cleat Holes
b) PT: ACSH912 Positions: 6
Cleat Holes for Side Screens

SH034
Mid-rail



a) PT: ACSH912 Positions: 5
Cleat Holes
b) PT: ACSH912 Positions: 6
Cleat Holes for Side Screens

SH027
Bottom rail



BOTTOM RAIL

a) PT: ACSH912 Positions: 5
Cleat Holes
b) PT: ACSH912 Positions: 6
Cleat Holes for Side Screens
c) PT: ACSH912 Positions: 8
Pivot Arm

ACSH912 Punch Tool

Position 1: Top closer holes for SH120

Position 2: Top closer plate side cut-out for SH120

Position 3: Hinge & lock stile inner face cut-out for SH020

Position 4: Hinge stile closer plate cut-out for SH020

Position 5: Cleat holes for top, bottom & midrails for SH120, 027, 032, 033 & 034

Position 6: Transom & mid-rail cleat holes i side screens for SH027, 032, 033 & 034

Position 7: Hinge stile adjusting hole for SH020

Position 8: Bottom rail pivot arm holes for SH027

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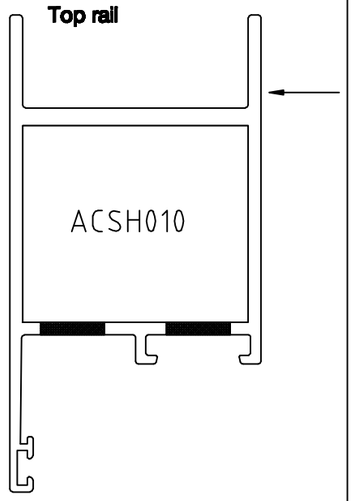
Shopline AFT Punch Tooling

TOP RAIL

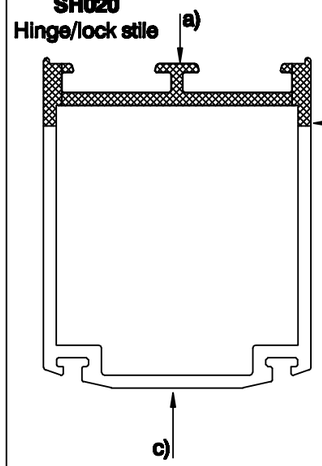
SH120
Top rail



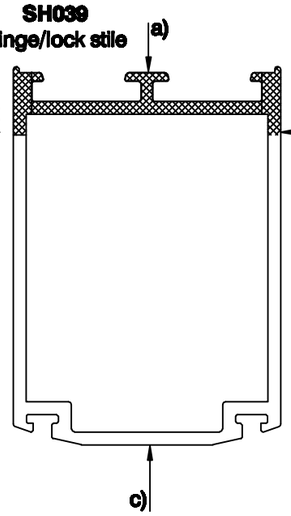
PT: ACSH913 Positions: 1
Side Cut-out

STILES

SH020
Hinge/lock stile

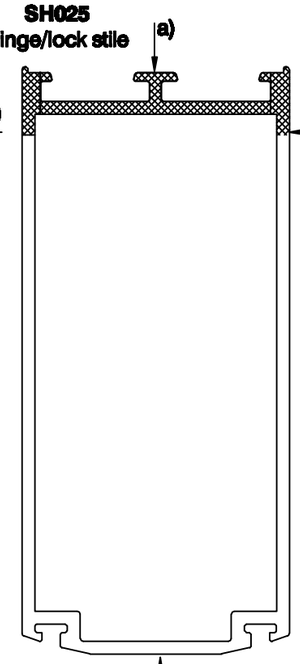


SH039
Hinge/lock stile

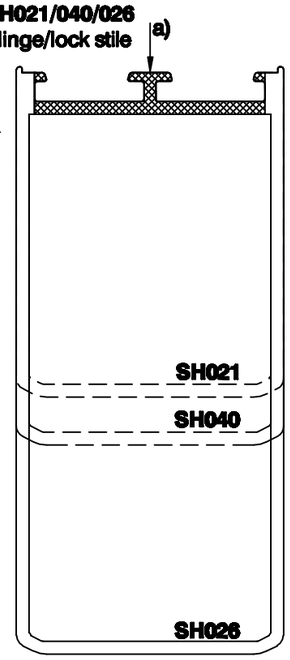


NB: Top pin requires adjustment for SH025 & 039

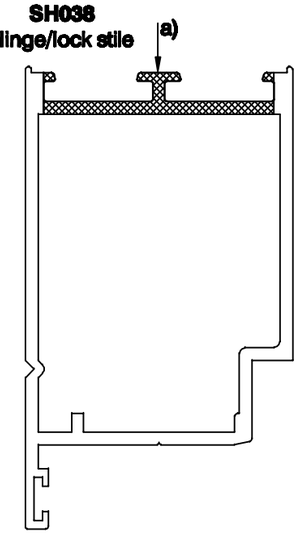
SH025
Hinge/lock stile



SH021/040/026
Hinge/lock stile

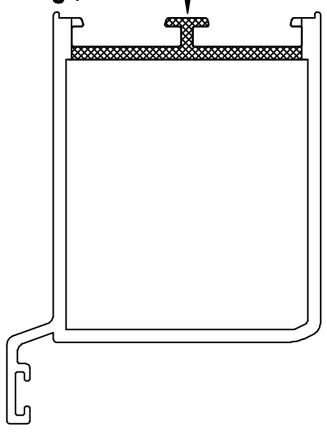


SH038
Hinge/lock stile

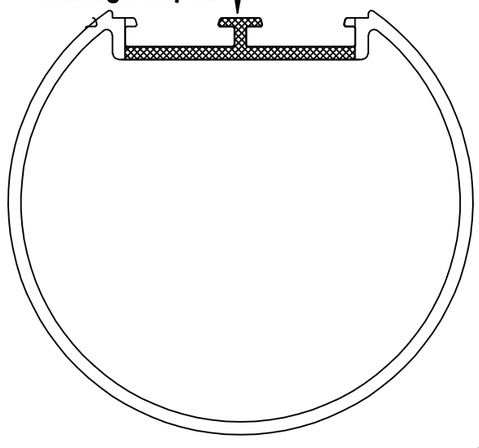


a) PT: ACSH913 Positions: 3
Hinge & Lock Stile Cut-out
b) PT: ACSH913 Positions: 4
Closer Plate Cut-out
c) PT: ACSH913 Positions:2
Hinge Adjustment Hole

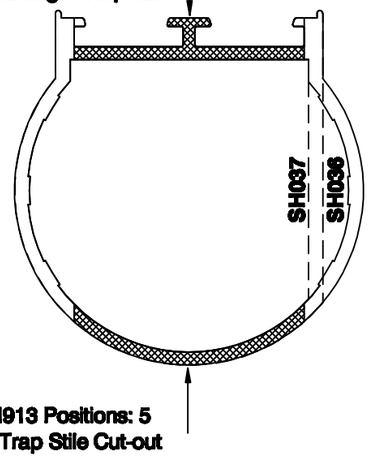
SH019
Hinge/lock stile



SH022
Anti-finger Trap stile



SH036/037
Anti-finger Trap stile



PT: ACSH913 Positions: 5
Anti-finger Trap Stile Cut-out

ACSH913 Punch Tool

Position 1: Side cut-out on SH120

Position 2: Closer top arm hole for adjusting screw on SH020, 025 & 039

Position 3: Hinge & lock stile inner face cut-out for SH019, 020, 021, 022, 025, 026, 036, 037, 038, 039 & 040

Position 4: Hinge stile closer plate cut-out for SH020, 025 & 039

Position 5: Anti-finger trap stile cut-out on SH036 & 037

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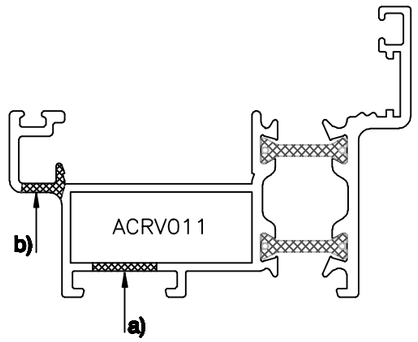
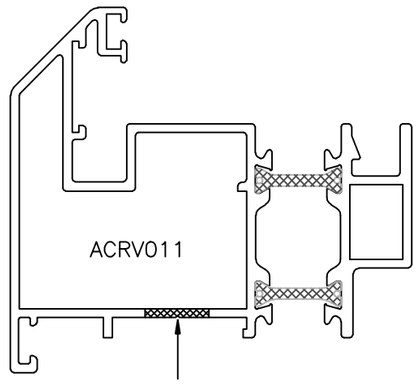
Reversible Window Punch Tooling

OUTERFRAME
RV010



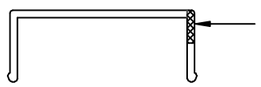
a) PT: ACRV912
Position: 1 Corner Cleat
b) PT: ACRV912
Position: 2 Drainage

WINDOW VENT
RV021



PT: ACRV912
Position: 2 Corner Cleat

REVERSE ADAPTER
RV070



PT: ACRV912
Position: 3 Drainage Slot

ACRV912 Punch Tool

Position 1: Corner cleat for RV010

Position 2: Corner cleat for RV021

Position 3: Drainage cut-out for RV070

Position 4: Drainage slot for RV010

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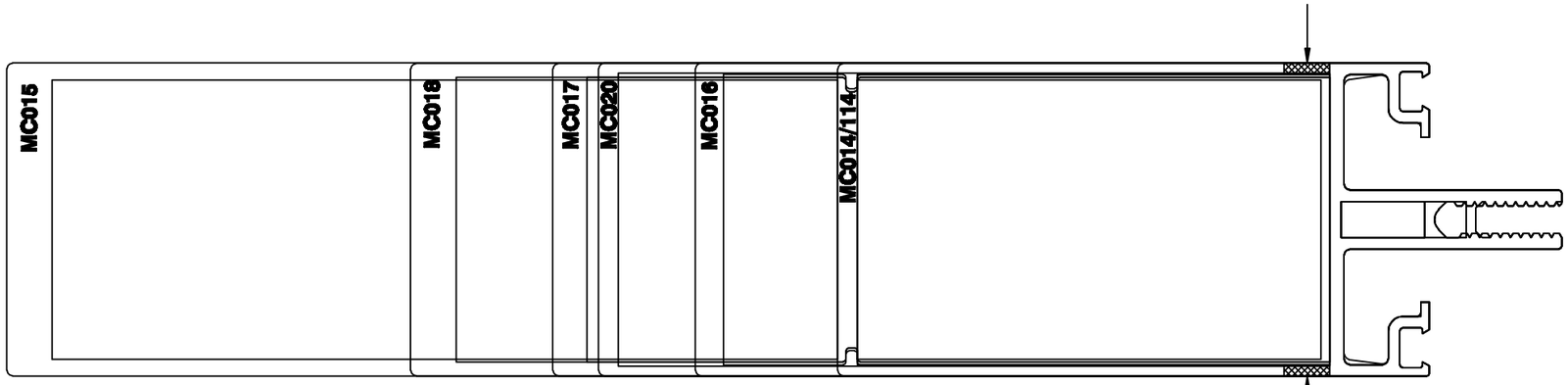
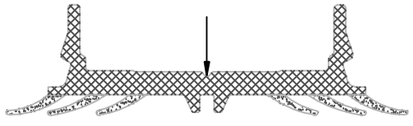
MC Wall Punch Tooling

MULLIONS



PT: KCW3126SS Positions: 1
Corner Cleat
NB: Mullions larger than MC014 require notching around cill before punch out

PRESSURE PLATE



PT: MA40 Positions: 1
Slot Punch

MA40 Punch Tool

Position 1: Slot punch for DK154

Position 2: Drainage for MC052, 130, 131, 132 & 053 after adjustment

Position 3: Square coupling joint MC040, 040B, 045 & 140

KCW3126SS Punch Tool

Position 1: 19mm transom cut-out for MC130, 131 & 132

Position 2: Cut-out to join to cill for MC014, 015, 016, 017, 018, 020, 024 & 114

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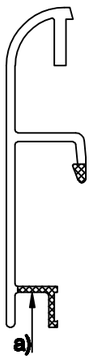
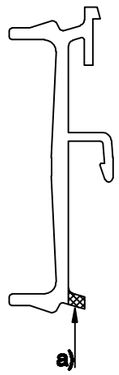
MC Wall Punch Tooling

TRANSOMS

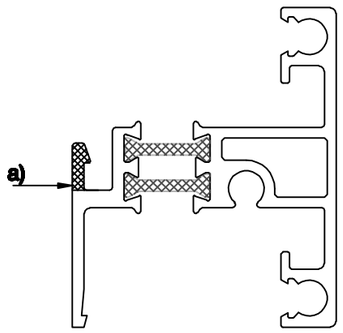
MC052



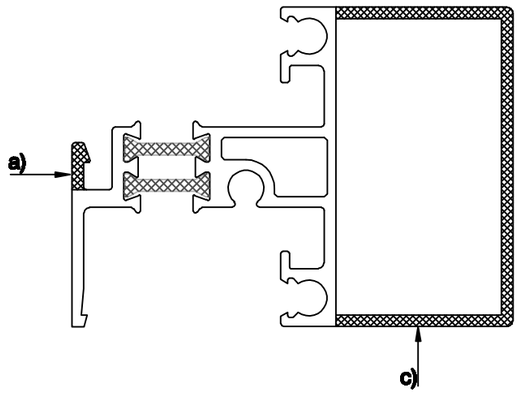
MC053



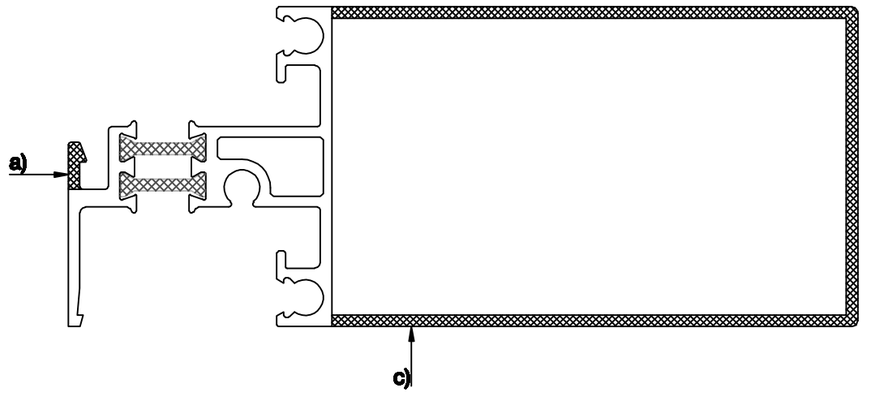
MC130



MC131



MC132

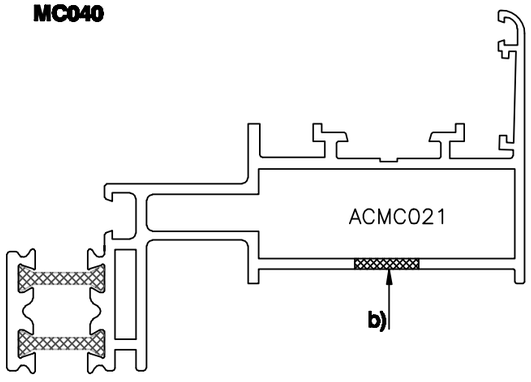


a) PT: MA40 Positions: 2
Drainage

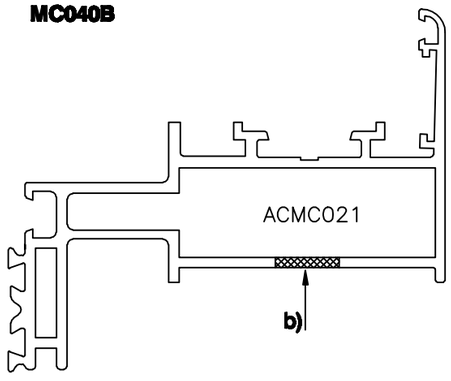
b) PT: MA40 Positions: 3
Corner Cleat

c) PT: KCW3126SS Positions: 1
19mm Transom Cut-out

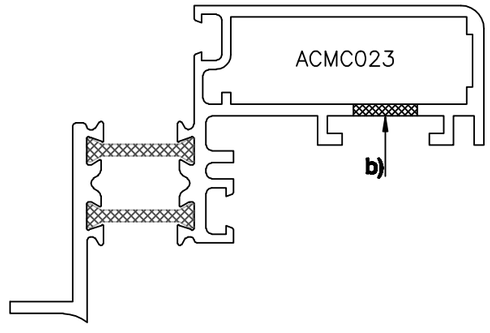
MC040



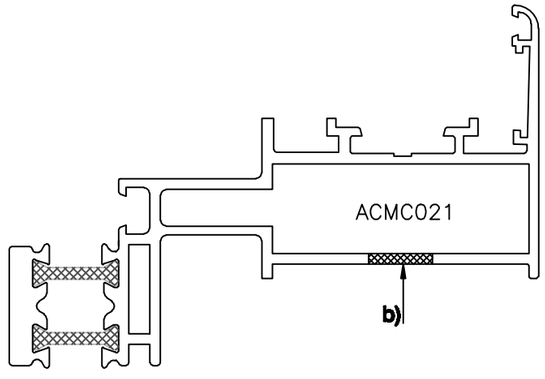
MC040B



MC045



MC140



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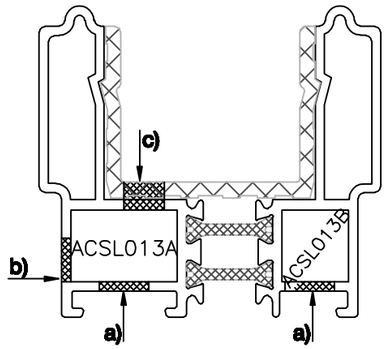
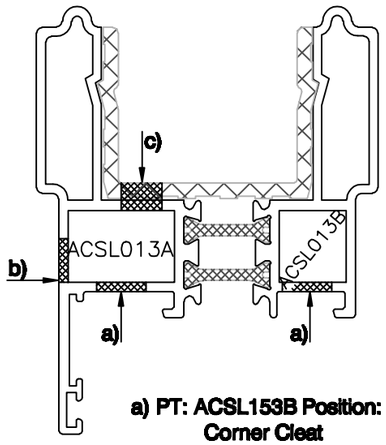
Slide Punch Tooling

OUTERFRAME

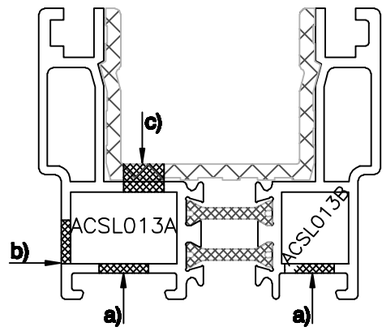
SL010
SL050



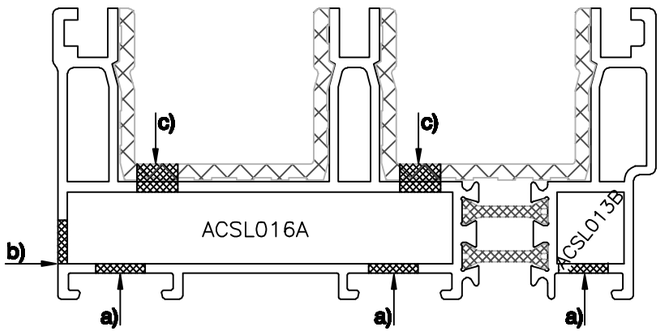
SL013



SL110



SL310



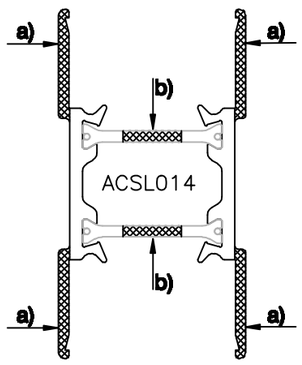
a) PT: ACSL153B Position: 1
Corner Cleat

b)PT: ACSL153B Position: 2
Face Drainage

c) PT: ACSL153B Position: 3
Centre Drainage

TRANSOM

SL033

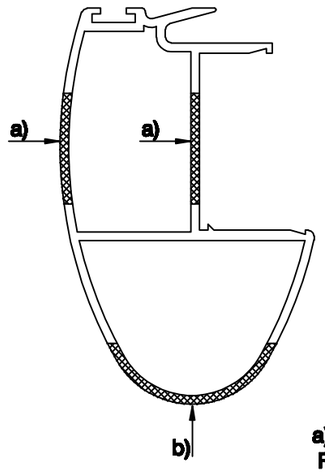


a) PT: ACSL153A Position: 3
Embedding cut-out

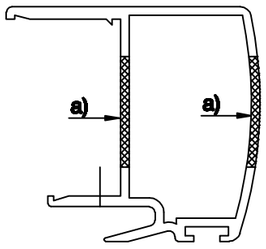
b) PT: ACSL153A Position: 4
Connecting Bracket Hole

INTERLOCKS

SL031



SL030



a) PT: ACSL153A Position: 7
Rail Passage & Screw Hole

b) PT: ACSL153A Position: 8
Sealing Member Cut-out

ACSL153A Punch Tool

Position 1: Handle cut-out for SL020, 120 & 220

Position 2: Rail passage & screw hole for SL020, 030, 031, 032, 120 & 220

Position 3: Embedding cut-out for SL021 & 033

Position 4: Connecting bracket hole punch for SL021 & 033

Position 5: Fixed pulley hole punch for SL021

Position 6: Pulley cut-out for SL021

Position 7: Rail passage for SL031

Position 8: Sealing member cut-out for SL031

ACVG160B Punch Tool

Position 1: Corner cleat for SL010, 013, 110 & 310

Position 2: Face drainage for SL010, 013, 110 & 310

Position 3: Centre drainage for SL010, 013, 110 & 310

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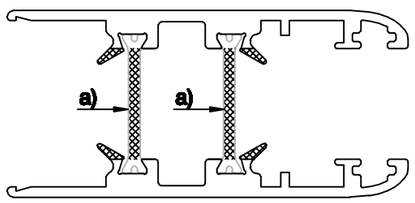
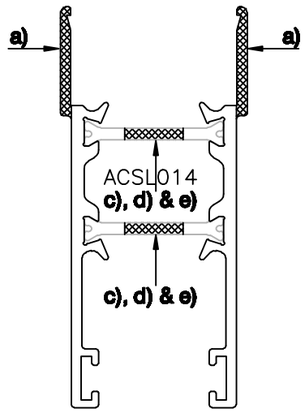
Slide Punch Tooling

VENT PROFILE

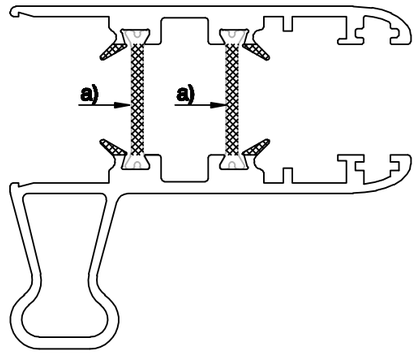
SL020



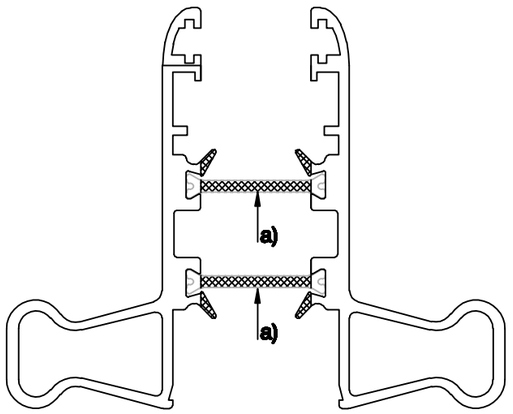
SL021



SL120



SL220



a) PT: ACSL153A Position: 2
Rail Passage & Screw Hole

b) PT: ACSL153A Position: 3
Embedding cut-out

c) PT: ACSL153A Position: 4
Connecting Bracket Hole Punch

d) PT: ACSL153A Position: 5
Fixed Pulley Hole Punch

e) PT: ACSL153A Position: 6
Pulley Cut-out

ACSL153A Punch Tool

Position 1: Not used.

Position 2: Rail passage & screw hole for SL020, 030, 031, 032, 120 & 220

Position 3: Embedding cut-out for SL021 & 033

Position 4: Connecting bracket hole punch for SL021 & 033

Position 5: Fixed pulley hole punch for SL021

Position 6: Pulley cut-out for SL021

Position 7: Rail passage for SL031

Position 8: Sealing member cut-out for SL031

ACVG160B Punch Tool

Position 1: Corner cleat for SL010, 013, 110 & 310

Position 2: Face drainage for SL010, 013, 110 & 310

Position 3: Centre drainage for SL010, 013, 110 & 310

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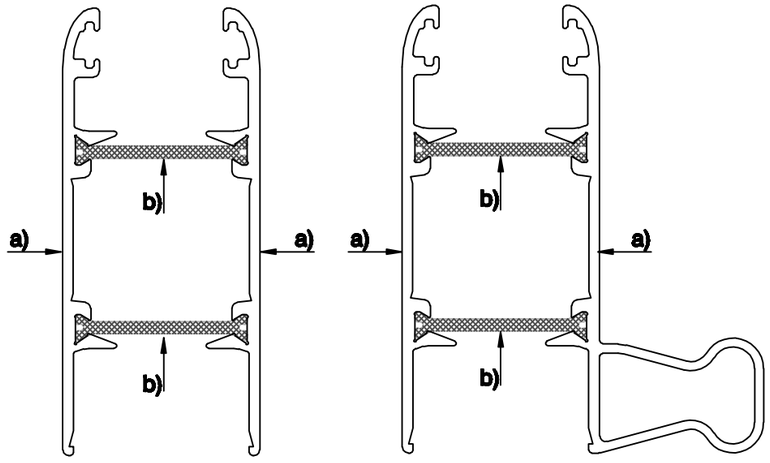
Slide Plus Punch Tooling

VENT PROFILE

SL2020 SL2120

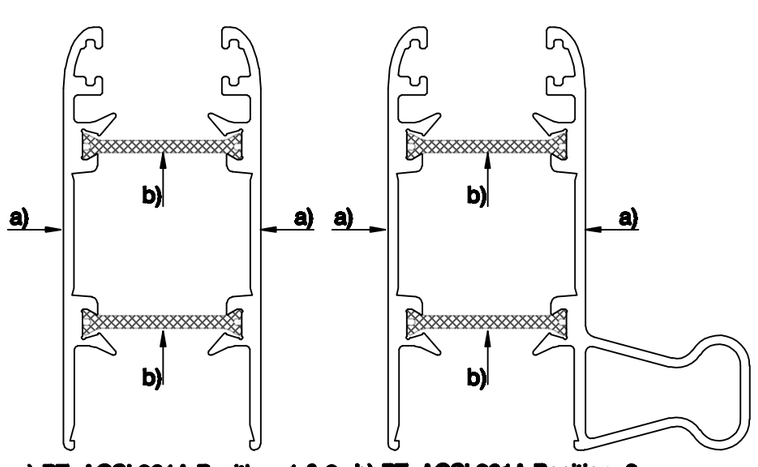


a) PT: ACSL901A-1 Position: 1 & 2 Handle Slot

b) PT: ACSL901A-1 Position: 3 Hasp Crossing

VENT PROFILE

SL1020 SL1120



a) PT: ACSL901A Position: 1 & 2 Handle Slot

b) PT: ACSL901A Position: 3 Hasp Crossing

ACSL901A Punch Tool

Position 1: Handle slot for SL1020 & 1120

Position 2: Handle slot for SL1020 & 1120

Position 3: Hasp crossing for SL1020 & 1120

ACSL901A-1 Punch Tool

Position 1: Handle slot for SL2020 & 2120

Position 2: Handle slot for SL2020 & 2120

Position 3: Hasp crossing for SL2020 & 2120

ACSL901B Punch Tool

Position 1: Rail passage for SL1020 & 1120

Position 2: 'T' connection for SL1021 & 1033

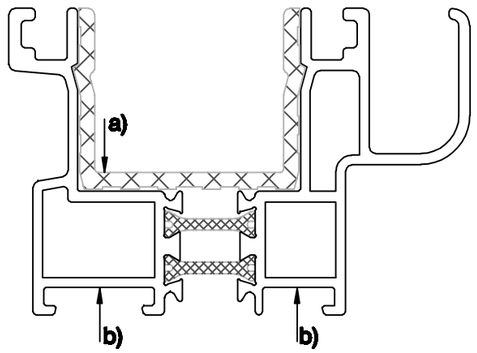
Positions 3 & 4: Rail clearance for SL1120

Position 5: Drainage for SL1010/SL050

Position 6: Square coupling SL1010

CILL SECTION

SL1010

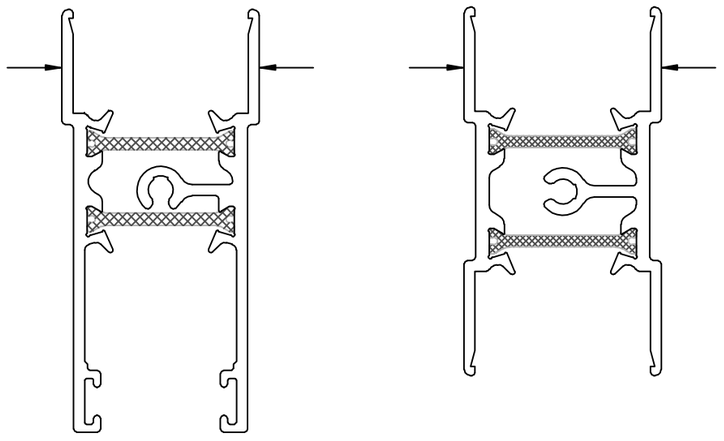


a) PT: ACSL901B Position: 5 Drainage

b) PT: ACSL901B Position: 6 Corner Cleat

RAILS

SL1021 SL1033



PT: ACSL901B Position: 2 'T' Connection

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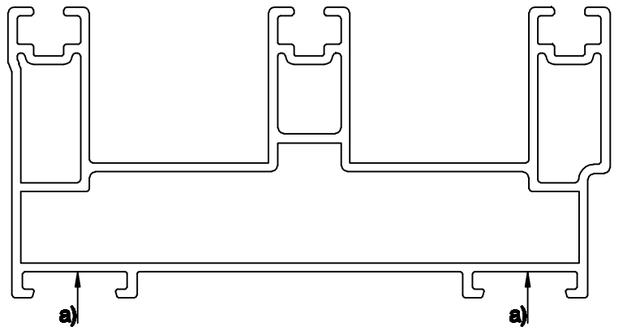
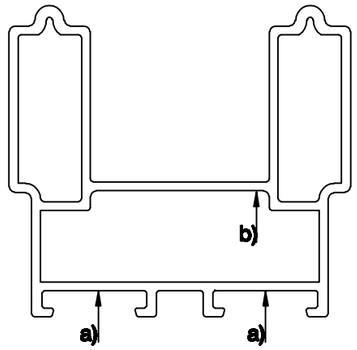
Slide Cold Punch Tooling

CILL SECTIONS

SL8310



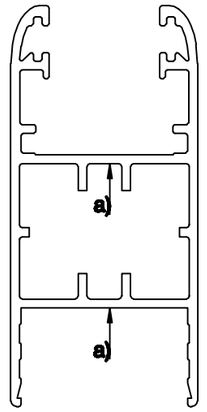
SL810



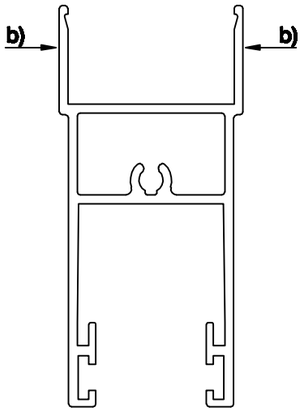
a) PT: ACSL853B Position: 1 Corner Cleat
b) PT: ACSL853B Position: 2 Drainage

VENT PROFILE

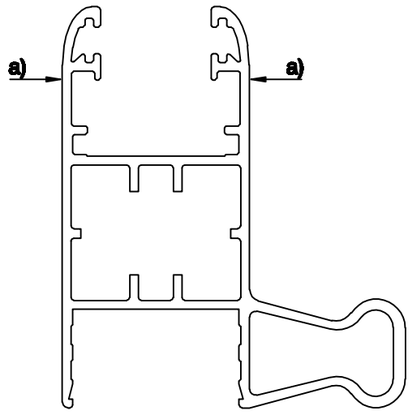
SL820



SL821



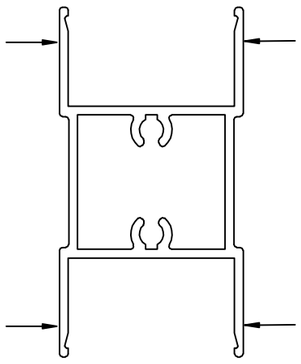
SL8120



a) PT: ACSL853A Position: 1
Rail Passage & Screw Hole
b) PT: ACSL853A Position: 4
Embedding Cut-out

TRANSOM

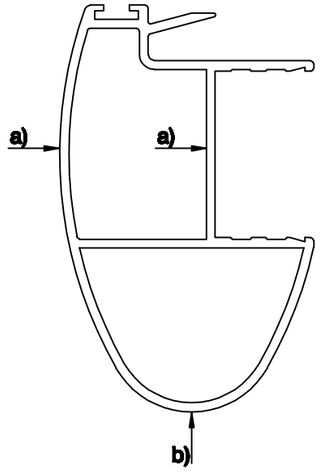
SL033



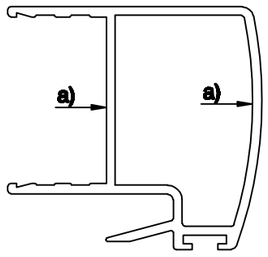
PT: ACSL853A Position: 4
Embedding Cut-out

INTERLOCKS

SL831



SL830



a) PT: ACSL853A Position: 2 & 3
Rail Passage & Screw Hole
b) PT: ACSL853A Position: 5 & 6
Sealing Member Cut-out

ACSL853A Punch Tool

Position 1: Rail passage & screw hole for SL820 & 8120

Position 2 & 3: Rail passage & screw hole for SL830 & 831

Position 4: Embedding cut-out for SL821 & 833

Position 5 & 6: Sealing member cut-out for SL831

ACVG853B Punch Tool

Position 1: Corner cleat for SL810 & 8310

Position 2: Drainage for SL810

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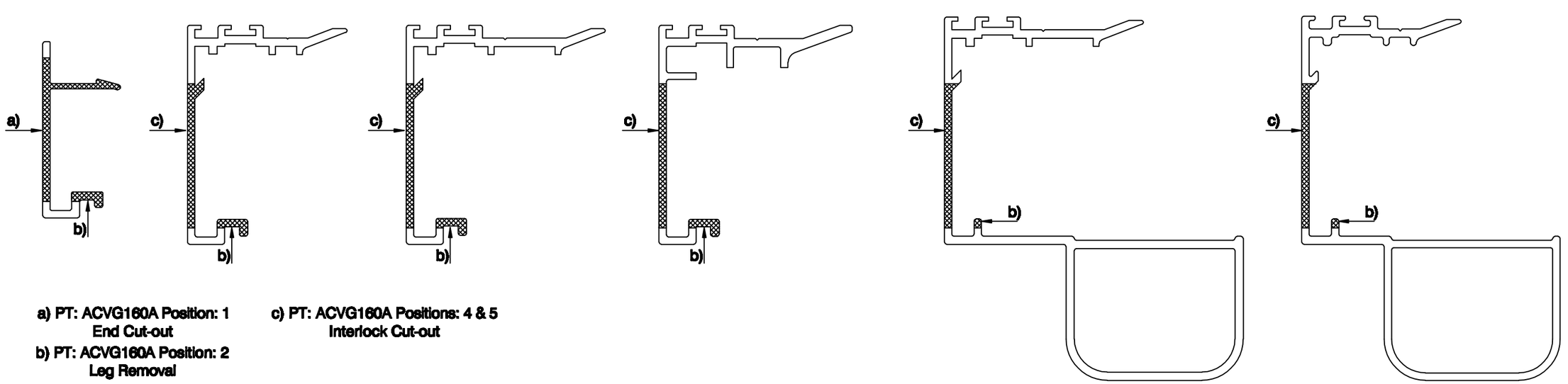
Visoglide Punch Tooling

COVER PROFILE

VG33 VG30 VG130 VG830 VG131 VG31



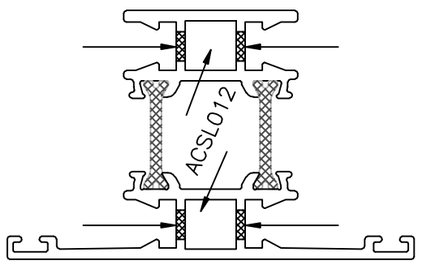
a) PT: ACVG160A Position: 1
End Cut-out

b) PT: ACVG160A Position: 2
Leg Removal

c) PT: ACVG160A Positions: 4 & 5
Interlock Cut-out

SASH TRANSOM

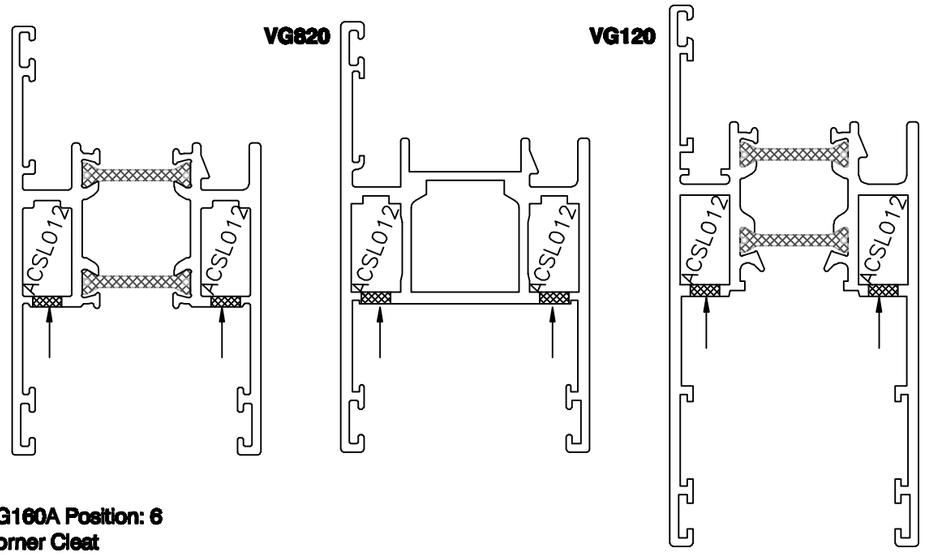
VG22



PT: ACVG160A Position: 5
Transom Hole Punch

VENT

VG20 VG820 VG120



PT: ACVG160A Position: 6
Corner Cleat

ACVG160A Punch Tool

Position 1: Cut-out (after leg removed on position 2) for VG33

Position 2: Short leg removal for VG30, 33, 130 & 830

Positions 3 & 4: Interlock cut-out for VG30, 31, 33, 130, 131 & 830

Position 5: Transom hole for VG22

Position 6: Corner cleat for VG20, 120 & 820

Position 7: Corner cleat for VG10, 13, 110 & 810

NB: For VG210 & VG310 punch tool ACVL167 is required using positions 1 & 2.

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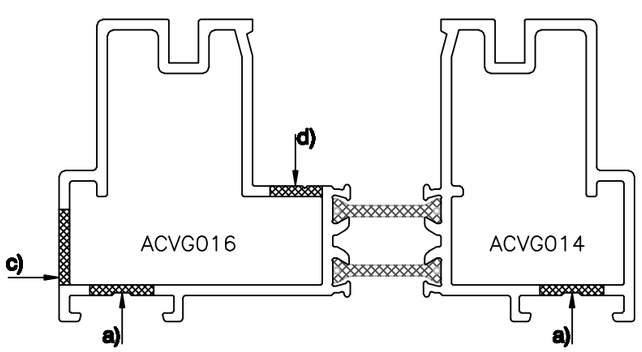
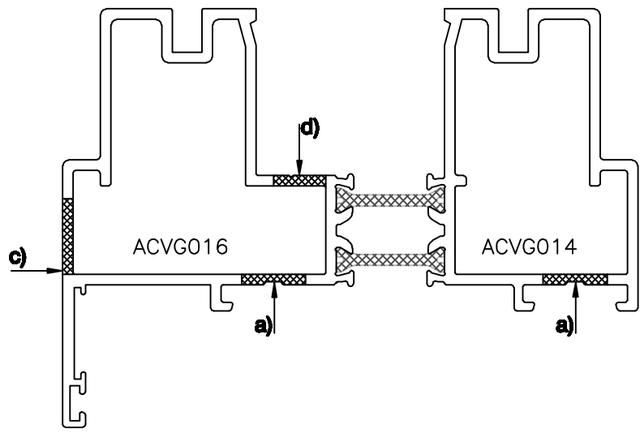
Visoglide Punch Tooling

OUTER FRAME

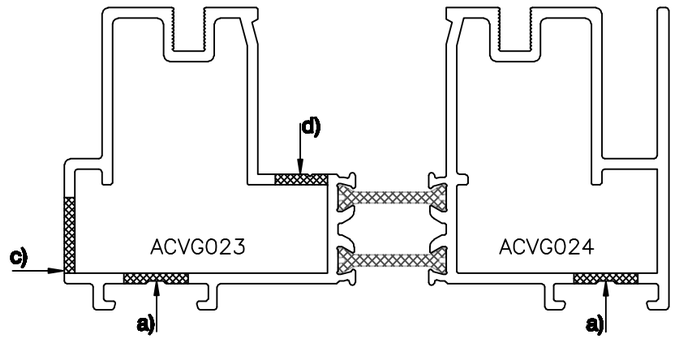
VG10



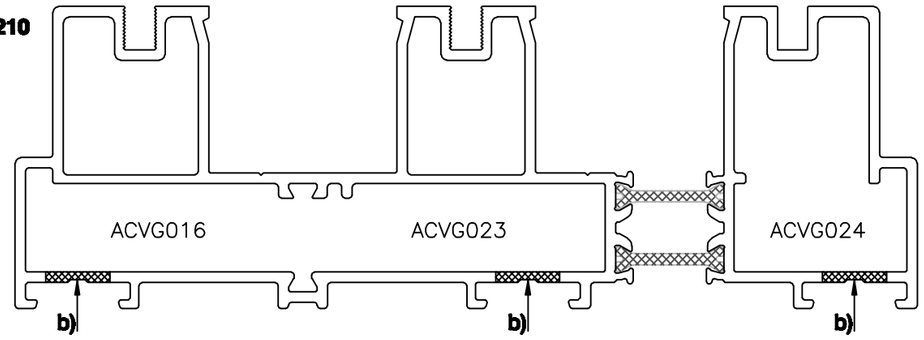
VG13



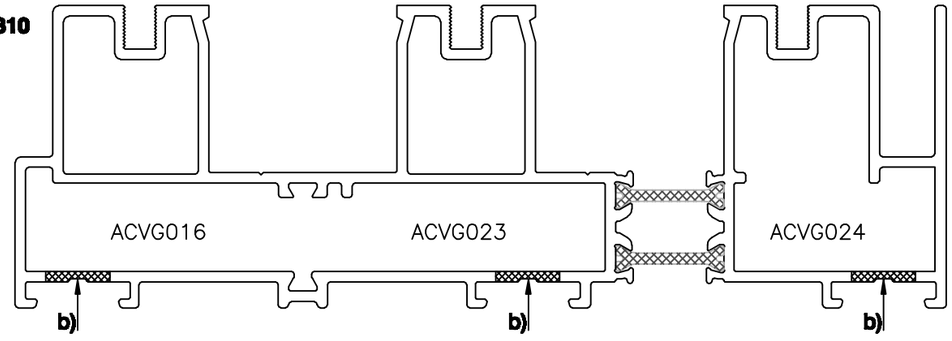
VG110



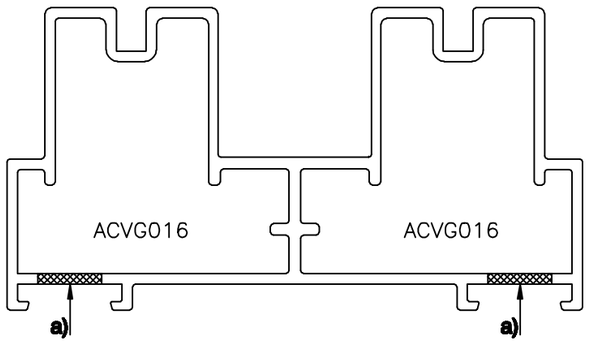
VG210



VG310



VG810



a) PT: ACVG160A Position: 7
Corner Cleat

b) PT: ACVL167 Positions: 1 & 2
Corner Cleat

c) PT: ACVG160B Position: 1 & 4
Front Drainage

d) PT: ACVG160B Positions: 2 & 3
Centre Channel Drainage

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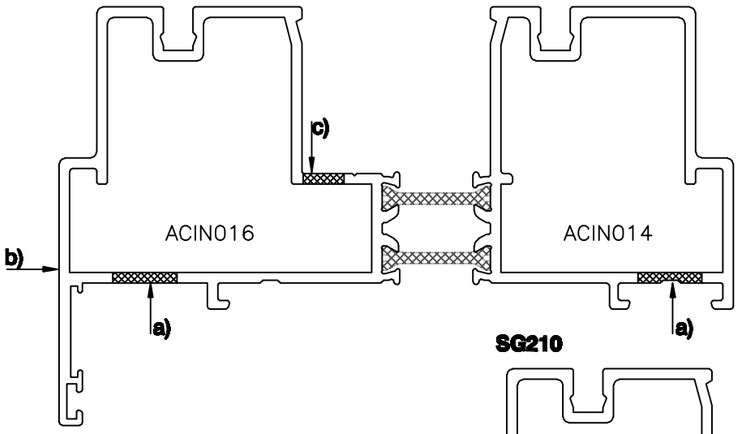
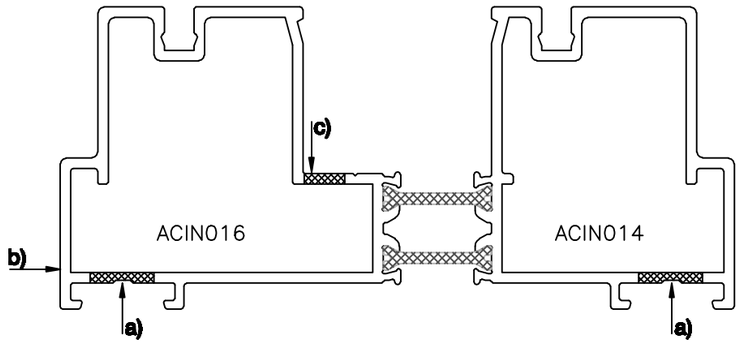
Superglide Punch Tooling

Outer Frame

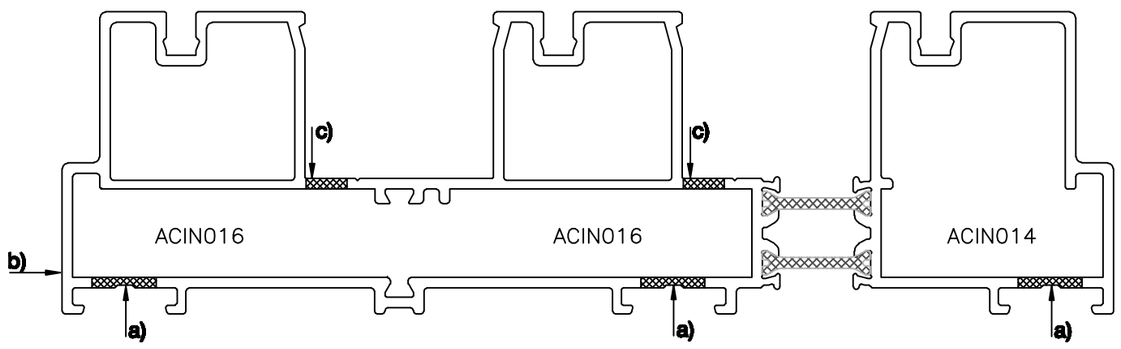
SG013



SG010



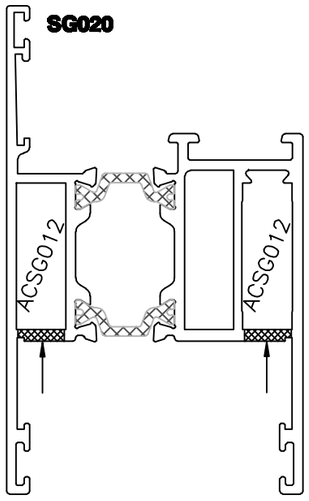
SG210



a) PT: ACSG160A Position: 4
Corner Cleat
b) PT: ACSG160B Position: 1
Drainage
c) PT: ACSG160B Position: 2
Drainage

Sash Profile

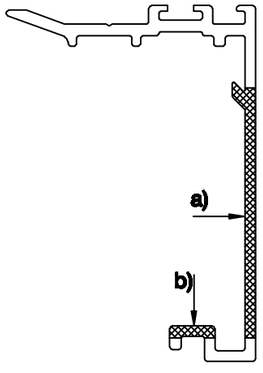
SG020



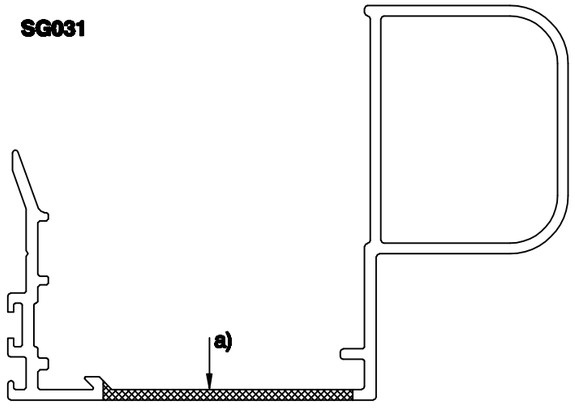
PT: ACSG160A Position: 5
Corner Cleat

Chicanes/Cover Profiles

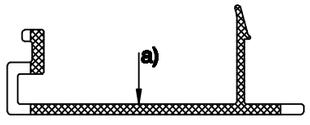
SG030



SG031



SG033



a) PT: ACSG160A Position: 1 & 2
Rail Passage
b) PT: ACSG160A Position: 13
Leg Removal

ACSG160A Punch Tool

Positions 1 & 2: Rail passage for SG030, 031 & 033

Position 3: Leg Removal for SG030

Position 4: Corner cleat for SG010, 013 & 210

Position 5: Corner cleat for SG020

ACSG160B Punch Tool

Position 1 & 2: Drainage for SG010, 013 & 210