PRODUCT SHEET
IGU

This product sheet explains the requirements and rules for designing a SageGlass IGU and placing the pigtail. Consult SageGlass for any special requests. When designing an IGU, first take note of the information provided in this guide. Then determine what the appropriate information is for your design:

- IGU Design
- Tolerance Allowed
- Basic Dimension Needs
- Rules and Constraints

IGU RULES

- Any angle must be >= 30° and <= 150°
- If the installed width is greater than 2286 mm (90") , the roller wave will be vertical as installed
- Edge finish will be standard seamed

RECTANGLE RULES:

- Maximum Length: 3048 mm (120"); other dimension must be:
    - <= 1828 mm (72") for Double Glazed Units
    - <= 1795 mm (70.7") for Triple Glazed Units
- Minimum Dimension: 350 mm (13.8")
- Triple IGUs - Both sides must be >= 840 mm (33.1")

NON-RECTANGLE SHAPES RULES:

- Shape must be larger than a bounding box of 350 mm (13.8") x 350 mm (13.8")
- Shape must be smaller than a bounding box of 2975 mm (117.1") x 1498 mm (59")
- Minimum length of any side, for shapes except the pentagon, >= 120 mm (4.72")
- For Pentagons, minimum length of any side is ≥ 220 mm (8.66")
- Bounding box of all shapes defined by L x H

PRODUCT SPECIFIC RULES:

HARMONY®

- Rectangles only
- Maximum Width: 1828 mm (72")
- Minimum Height :
    - 1200 mm (47.2") when width is <= 1600 mm (63")
    - 1400 mm (55.1") when width is between 1600 mm - 1828 mm (63"-72")

LIGHTZONE®

- Rectangles only
- Maximum width 1524 mm (60")
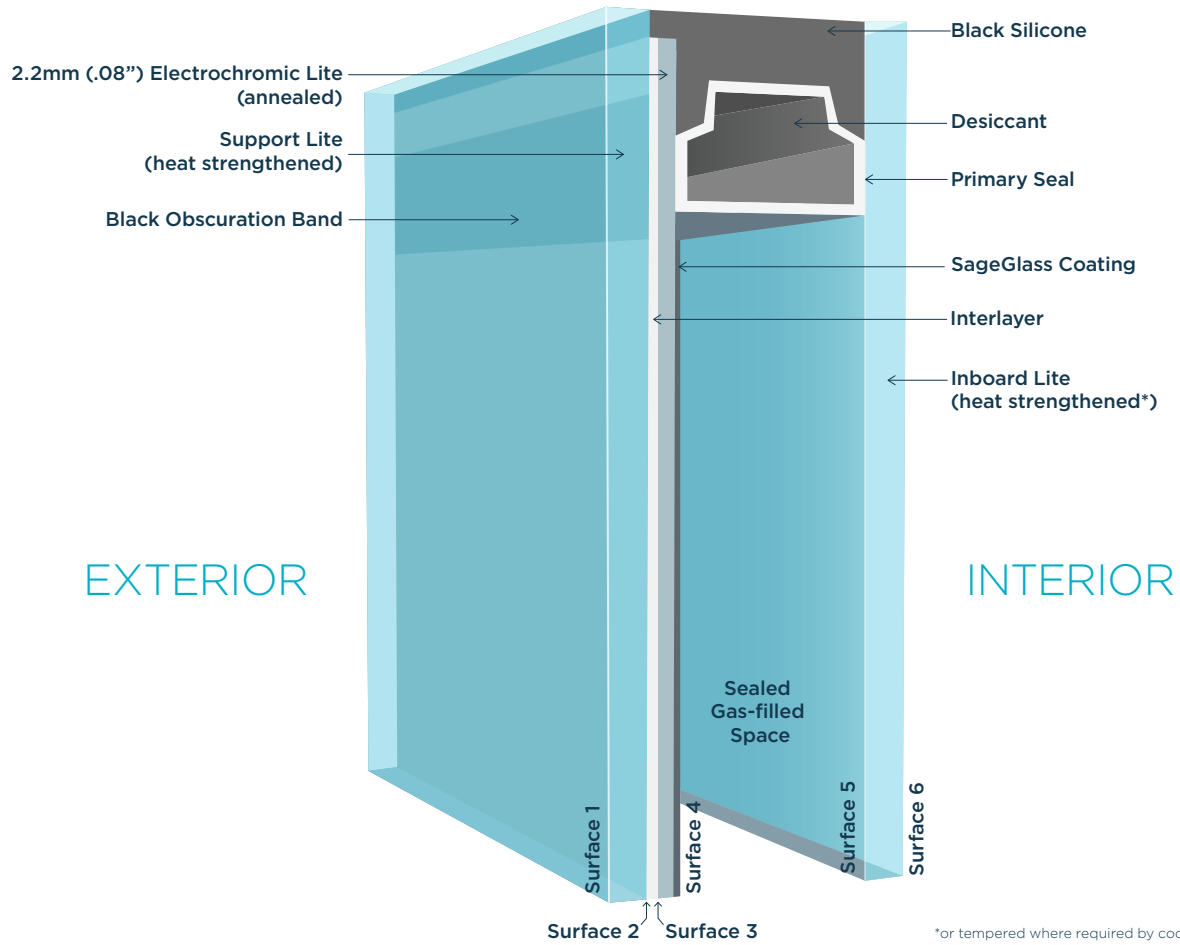- Minimum Zone Area: 0.19 m² (2 ft²)

TOLERANCES

The standard IGU length and width tolerance is ± 2 mm (0.08˝). The tolerance increases to ± 3 mm (0.12˝) if a side is >= 1981 mm (78˝), if a lite or laminate thickness is >= 8 mm (0.31˝), or if it is a triple IGU.

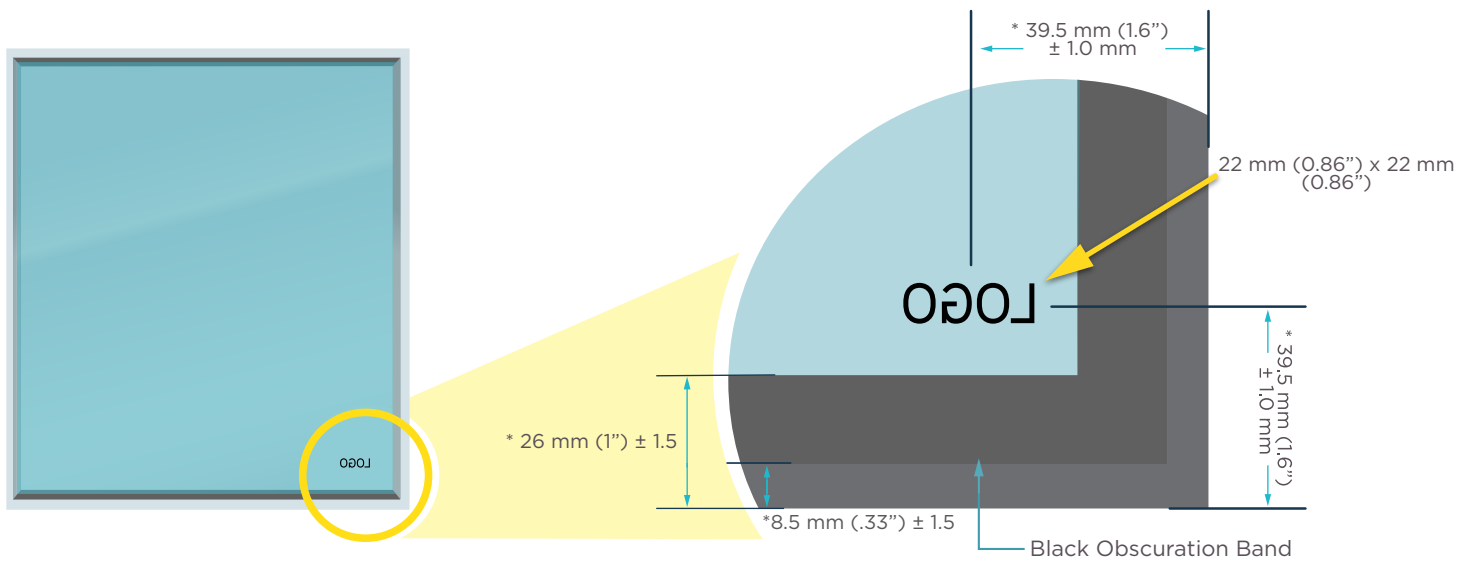The thickness tolerance is ± 1 mm (0.04") for double IGU and ± 2 mm (0.08") for triple IGU.

SHAPES

SageGlass IGUs are available in a wide variety of shapes to enhance your building designs. Determine which category your desired shape falls into by matching it to one of the diagrams in the tables below. Provide SageGlass with the requested dimensions. The measurements needed for each shape are indicated (e.g., L, L1, H, or H1). Reference the *Shapes: Dimensions & Pigtail Placement Section*.
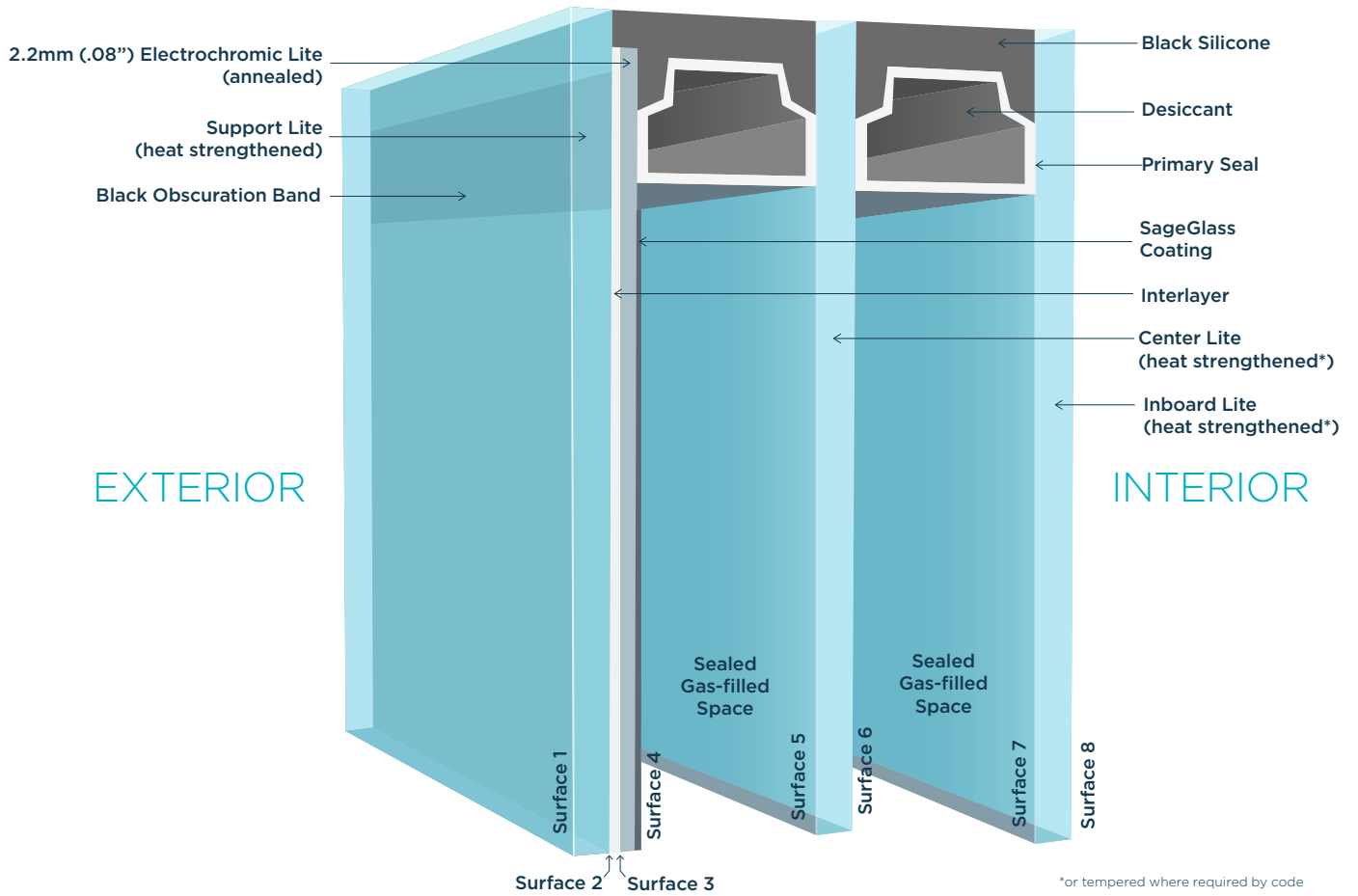
IGU CROSS-SECTION: DOUBLE PANE

2.2mm (.08") Electrochromic Lite (annealed)

Support Lite (heat strengthened)

Black Obscuration Band

Black Silicone

Desiccant

Primary Seal

SageGlass Coating

Interlayer

Inboard Lite (heat strengthened*)

EXTERIOR

INTERIOR

Sealed Gas-filled Space

Surface 1

Surface 4

Surface 5

Surface 6

Surface 2   Surface 3

*or tempered where required by code

IGU EXTERIOR: DOUBLE & TRIPLE PANE

* 39.5 mm (1.6")
± 1.0 mm

22 mm (0.86") x 22 mm (0.86")

LOGO

* 39.5 mm (1.6")
± 1.0 mm

* 26 mm (1") ± 1.5

*8.5 mm (.33") ± 1.5

Black Obscuration Band

* Logo can be positioned on either bottom corner depending on the pigtail position.

* Dimension increases if spacer inset increases
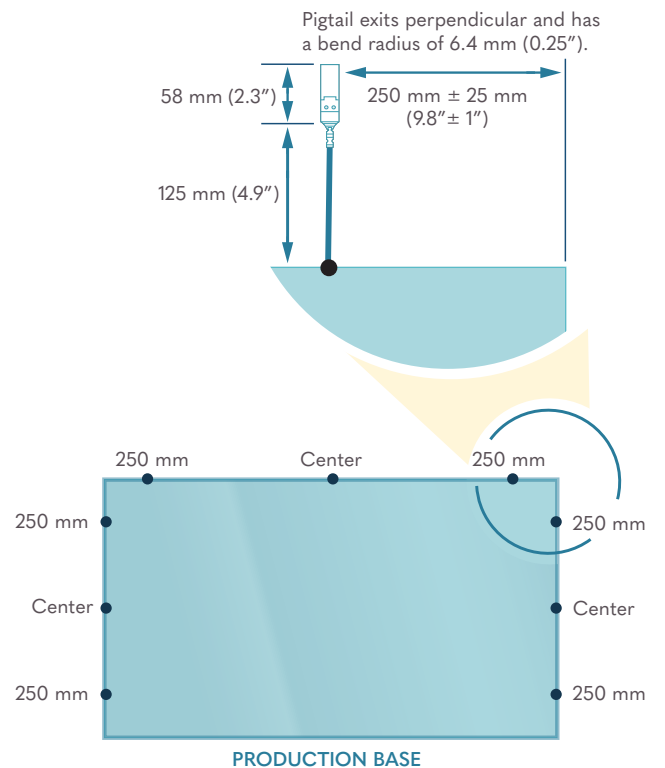
SAGEGLASS IGU

IGU CROSS-SECTION: TRIPLE PANE

2.2mm (.08") Electrochromic Lite (annealed)

Support Lite (heat strengthened)

Black Obscuration Band

Black Silicone

Desiccant

Primary Seal

SageGlass Coating

Interlayer

Center Lite (heat strengthened*)

Inboard Lite (heat strengthened*)

EXTERIOR

INTERIOR

Sealed Gas-filled Space

Sealed Gas-filled Space

Surface 1

Surface 4

Surface 5

Surface 6

Surface 7

Surface 8

Surface 2   Surface 3

*or tempered where required by code

PIGTAILS

The available pigtail locations depend on the IGU shape and size. See the diagrams below for possible pigtail locations for each IGU shape.

RULES & CONSTRAINTS:
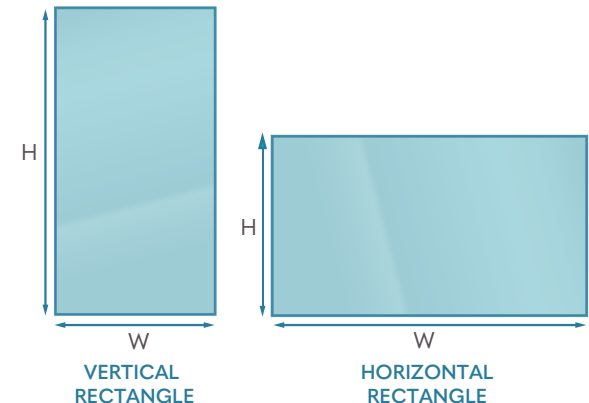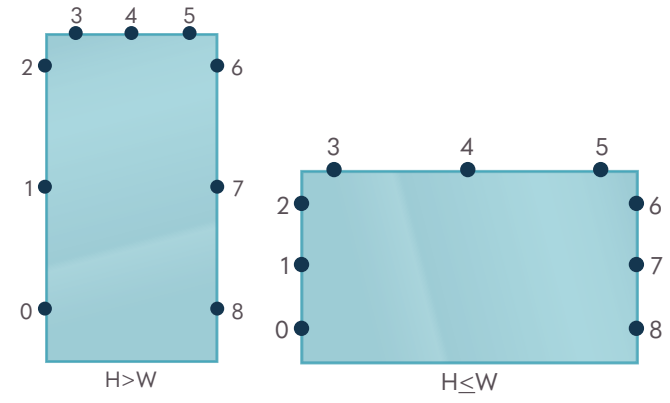
- Pigtail cannot be on installed base.
- Pigtail cannot be on production base.
- If IGU side with pigtail is between 250 mm (9.8") and 500 mm (19.7˝), then the pigtail must be centered on that side.
- Length of side with pigtail must be at least 250 mm (9.8˝)
- If the IGU is filled with krypton, the pigtail cannot be on a side that is < 400 mm
- Pigtail not allowed on step side

Pigtail exits perpendicular and has a bend radius of 6.4 mm (0.25").

58 mm (2.3")

250 mm ± 25 mm (9.8"± 1")

125 mm (4.9")

250 mm   Center   250 mm

250 mm   250 mm

Center   Center

250 mm   250 mm
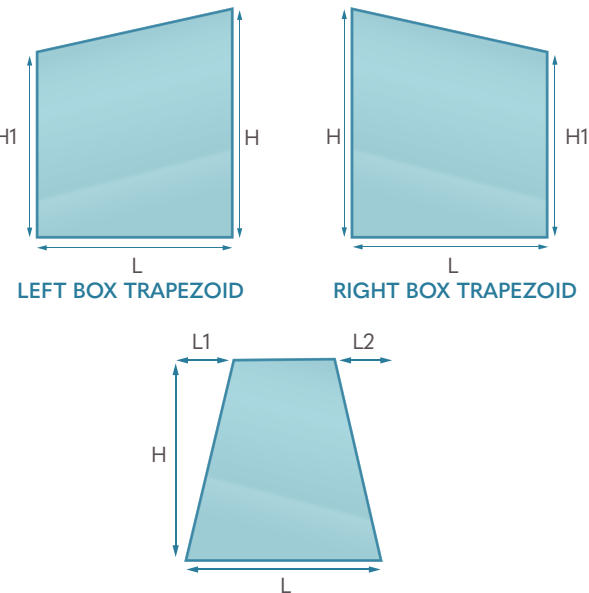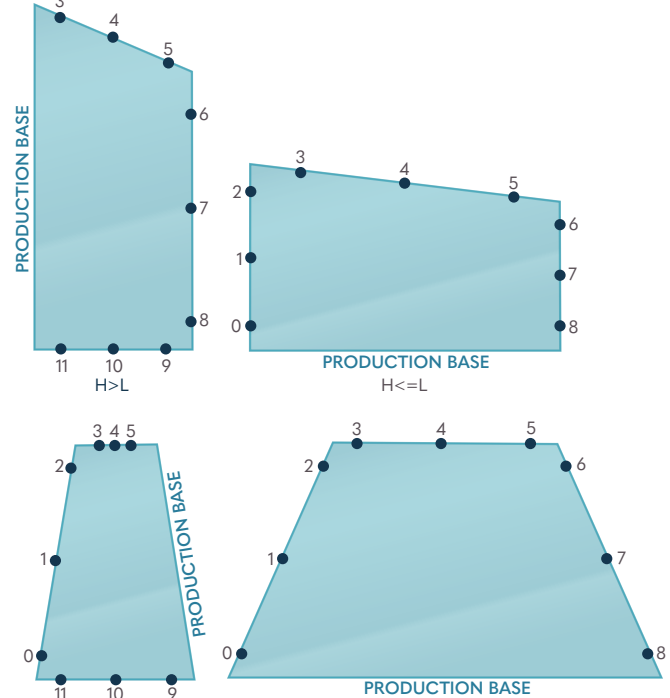
PRODUCTION BASE

SHAPES: DIMENSIONS & PIGTAIL PLACEMENT

NOTE: View is from the exterior. ● - Allowed Pigtail Locations
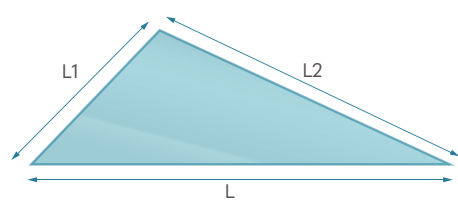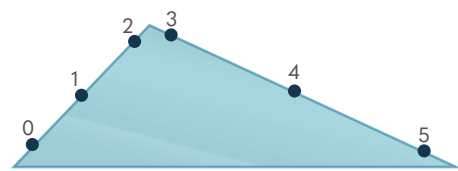
RECTANGLE

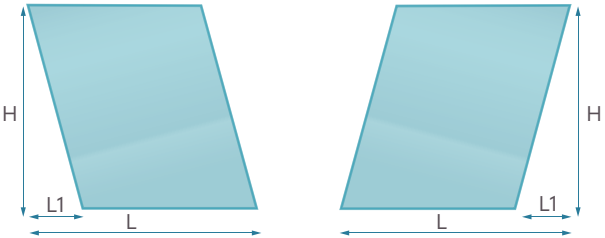| SHAPE	PIGTAIL LOCATION

VERTICAL RECTANGLE
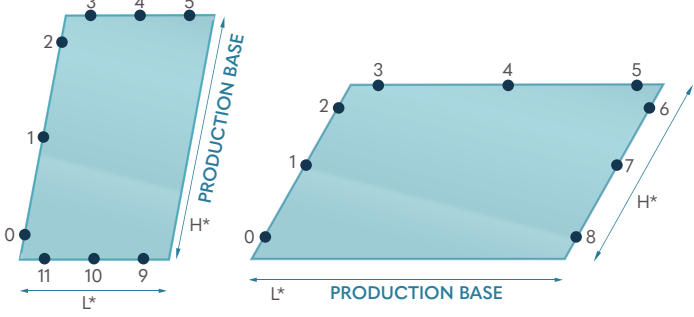
HORIZONTAL RECTANGLE

H>W

H≤W

TRAPEZOID

SHAPE	PIGTAIL LOCATION

LEFT BOX TRAPEZOID

RIGHT BOX TRAPEZOID

TRAPEZOID

NOTE: If H >1524 mm (60") a general quadrilateral shall be used

PRODUCTION BASE

H>L

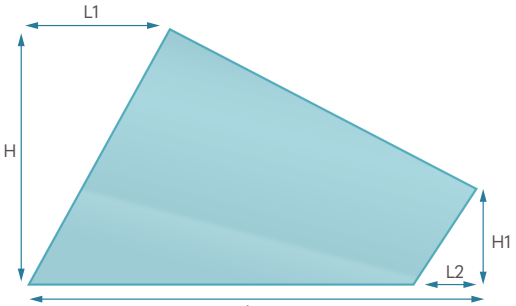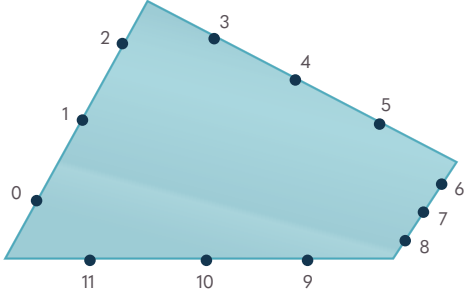PRODUCTION BASE
H<=L

PRODUCTION BASE
H>L

PRODUCTION BASE
H<=L

TRIANGLE

SHAPE	PIGTAIL LOCATION

L≥L1   L≥L2

PRODUCTION BASE
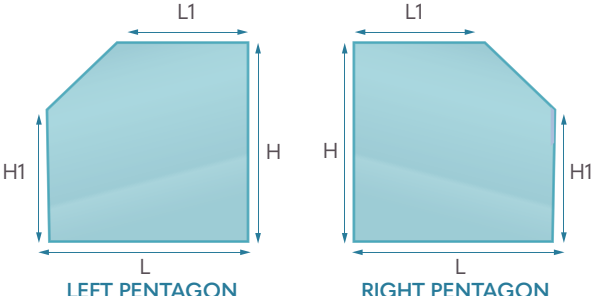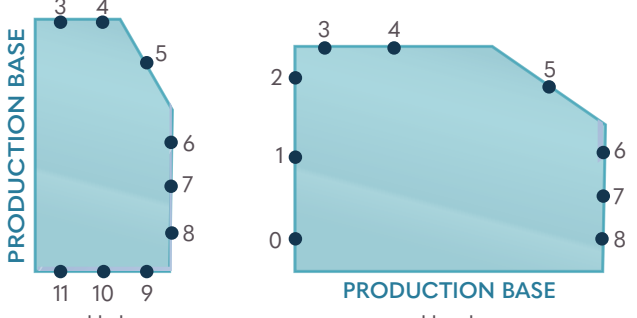
PARALLELOGRAM

SHAPE	PIGTAIL LOCATION
LEFT PARALLELOGRAM RIGHT PARALLELOGRAM	H*>*L H*<=L*

QUADRILATERAL

SHAPE	PIGTAIL LOCATION
GENERAL QUADRILATERAL L >= L1 L >=L2 H1<= H L>0; H>0	**NOTE**: Production base is the longest side. Pigtail connot be on the production base.

PENTAGON

SHAPE	PIGTAIL LOCATION
LEFT PENTAGON RIGHT PENTAGON L>L1 H>H1 **NOTE:** Must include three 90° corners	H>L H<=L

STEPS

- Step(s) only allowed on rectangles
- Step(s) only allowed on support lite
- The maximum dimensions for IGUs with steps is 1795 (70.6") x 3048 (120")
- Step must be >= 19 mm (0.75") and <= 140 mm (5.51")
- Up to two sides of the rectangle may have a step
- Both long sides of the rectangle cannot have steps

2.2mm (.08") Electrochromic Lite (annealed)

Support Lite (heat strengthened)

Black Obscuration Band

Black Silicone

Desiccant

Primary Seal

SageGlass Coating

Interlayer

Inboard Lite (heat strengthened*)
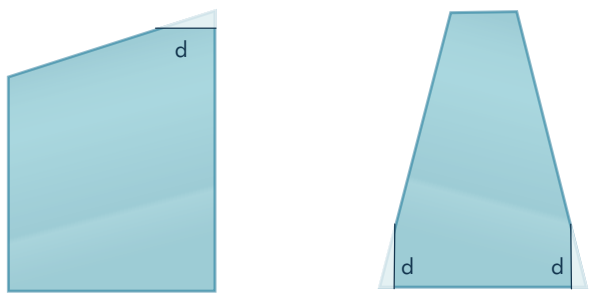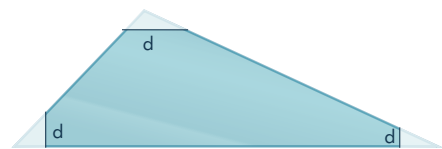
EXTERIOR

INTERIOR

Sealed Gas-filled Space
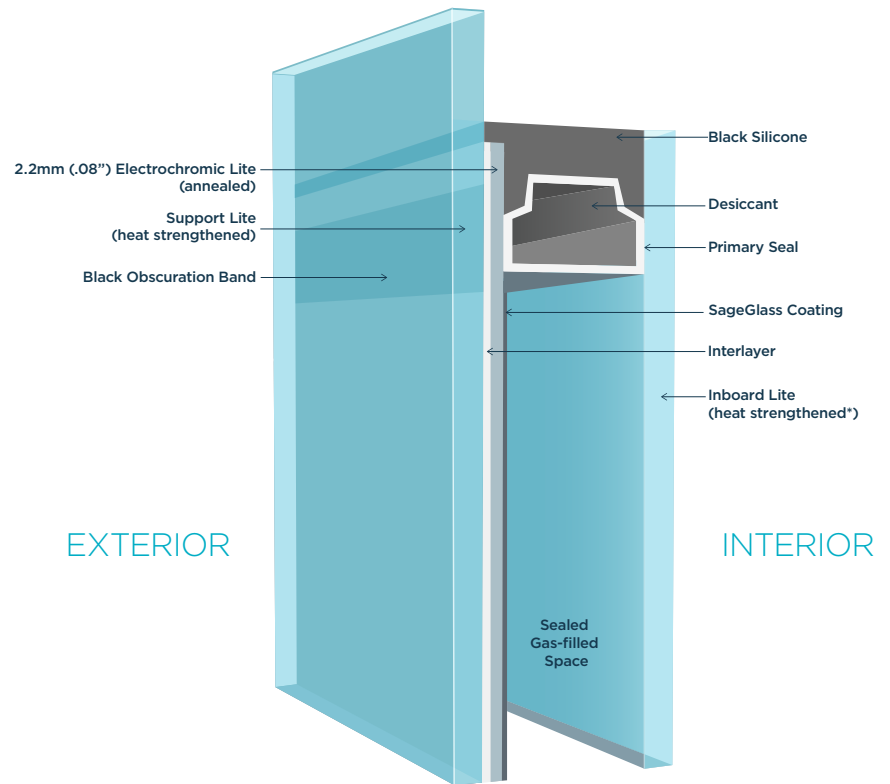
*or tempered where required by code

CLIPPED CORNERS

Certain corners cannot be manufactured, and the points need to be "clipped" and replaced with a straight side. The guidelines for clipped corners are shown below.

NOTE: Dimensions to pre-clipped corners must be provided.

SHAPE	RULES & CONSTRAINTS
BOX TRAPEZOID **TRAPEZOID**	• Angles 30 to <= 35° will be clipped to a length (d) of 19.1 mm (0.75") • Angles > 35 to < 65° will be clipped to a length (d) of 9.5 mm (0.37") • Angles < 30°, replace with a length (d) of >= 220 mm (8.66") (box trapezoid only)
TRIANGLE	• Angles 30 to <= 35° will be clipped to a length (d) of 19.1 mm (0.75") • Angles > 35 to < 65° will be clipped to a length (d) of 9.5 mm (0.37") • Angles < 30°, replace with a length (d) of >= 120 mm (4.72")

FROST MUSIC SCHOOL
FLORIDA, USA

LANDRY DESIGN GROUP
CALIFORNIA, USA

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