

ARCHITECTURAL STICKS

Sticks are frame components used to produce transom, transom/sidelight, sidelight and borrowed light frames. The components are cut to length, notched or mitered, assembled and welded into an assembly to meet the requirements of the opening.

Sticks are commonly identified as TSF (Transom Sidelight Frame) sections. Each component has a unique TSF Number that identifies it from another section. The frame jamb depth and gage of steel are also used in the identification and ordering since the TSF number is only a basic identification number.

Architectural Stick components are available in 10'-6" lengths and intermediate lengths for 6'-8", 7'-0", 7'-2" and 8'-0" door heights. The sections can be precut at the factory and welded in the distributor shop. The sections can be blank (no cutouts), have strike or hinge preparations to match doors and other three sided frames. See the exact TSF number for the hardware preparation that is included.

TSF PARTS LIST

Single Rabbet	Double Rabbet	Part Number	Description	Page	Single Rabbet	Double Rabbet	Part Number	Description	Page
		TSF-6	6' 8" Double Hinge Mullion	5.2.3			TSF-33	7' 2" Double Strike Mullion	5.2.3
		TSF-7	6' 8" Double Strike Mullion	5.2.3			TSF-34 R/L	7' 2" Hinge & Strike Mullion	5.2.3
		TSF-8 R/L	6' 8" Hinge & Strike Mullion	5.2.3			TSF-35 R/L	7' 2" Single Hinge Mullion	5.2.3
		TSF-9 R/L	6' 8" Single Hinge Mullion	5.2.3			TSF-36 R/L	7' 2" Single Strike Mullion	5.2.3
		TSF-10 R/L	6' 8" Single Strike Mullion	5.2.3			TSF-39 R/L	7' 2" End Hinge Jamb 10' 6"	5.2.2
		TSF-11	7' 0" Double Hinge Mullion	5.2.3			TSF-40	Cased Open Section 10' 6"	5.2.5
		TSF-12	7' 0" Double Strike Mullion	5.2.3			TSF-41 R/L	Single Strike Mullion 10' 6" (All Heights)	5.2.2
		TSF-13 R/L	7' 0" Hinge & Strike Mullion	5.2.3			TSF-42 R/L	6' 8" Single Hinge Mullion 10' 6"	5.2.2
		TSF-14 R/L	7' 0" Single Hinge Mullion	5.2.3			TSF-43 R/L	7' 0" Single Hinge Mullion 10' 6"	5.2.2
		TSF-15 R/L	7' 0" Single Strike Mullion	5.2.3			TSF-44 R/L	7' 2" Single Hinge Mullion 10' 6"	5.2.2
		TSF-16	Blank Mullion 2" Face 10' 6"	5.2.5			TSF-45 R/L	6' 8" Hinge & Strike Mullion 10' 6"	5.2.2
		TSF-20	7' 0" Blank Mullion	5.2.3			TSF-46 R/L	7' 0" Hinge & Strike Mullion 10' 6"	5.2.2
		TSF-21	Head or Sill 2" Face 10' 6"	5.2.3			TSF-47 R/L	7' 2" Hinge & Strike Mullion 10' 6"	5.2.2
		TSF-22	Filler with 5/8" Stop 10' 6"	5.2.4	N/A		TSF-51	2 Way Corner Post Outside 10' 6"	5.2.4
		TSF-23	Head or Sill 4" Face 10' 6"	5.2.5	N/A		TSF-52	2 Way Corner Post Outside 10' 6"	5.2.4
		TSF-24 R/L	6' 8" End Hinge Jamb 10' 6"	5.2.2	N/A		TSF-53	3 Way Corner Post Outside 10' 6"	5.2.4
		TSF-25 R/L	7' 0" End Hinge Jamb 10' 6"	5.2.2	N/A		TSF-54	3 Way Corner Post Outside 10' 6"	5.2.4
		TSF-26 R/L	End Strike Jamb 10' 6" (All Heights)	5.2.2					
		TSF-27	Filler without Stop 10' 6"	5.2.4					
		TSF-32	7' 2" Double Hinge Mullion	5.2.3					

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TSF PARTS LIST

Single Rabbet	Double Rabbet	Part Number	Description	Page	Single Rabbet	Double Rabbet	Part Number	Description	Page
See TS 93		TSF-56	6' 8" Removable Mullion Double Strike	5.2.3	N/A		TSF-102	Un-assembled Transom Bar Side A 1 - 9/16" 12' 1"	5.2.5
See TS 94		TSF-57	7' 0" Removable Mullion Double Strike	5.2.3	N/A		TSF-103	Un-assembled Transom Bar Side B 1 - 15/16" 12' 1"	5.2.5
See TS 96		TSF-58	7' 2" Removable Mullion Double Strike	5.2.3			TSF-104	Flush Sill Section Galvannealed 8 - 1/8" High 12' 1"	5.2.5
See TS 98		TSF-59	8' 0" Removable Mullion Double Strike	5.2.3			TSF-105	Flush Sill Section Galvannealed 6-1/8" High 12' 1"	5.2.5
		TSF-80	8' 0" Double Hinge Mullion	5.2.3			TSF-106	Flush Sill Section Galvannealed 16-1/8" High 12' 1"	5.2.5
		TSF-81	8' 0" Double Strike Mullion	5.2.3			TSF-107	Recessed Sill Galvannealed 8-1/8" Face x 1-9/16" Deep 12' 1"	5.2.5
		TSF-82 R/L	8' 0" Hinge & Strike Mullion	5.2.3		N/A	TSF-108	Recessed Sill Galvannealed 8-1/8" Face x 1-15/16" Deep 12' 1"	5.2.5
		TSF-83 R/L	8' 0" Single Hinge Mullion	5.2.3	N/A		TSF-132 R/L	Blank Partial Sidelite Mullion 40" Notch 10' 6"	5.2.6
		TSF-84 R/L	8' 0" Single Strike Mullion	5.2.3	N/A		TSF-133 R/L	Single Strike Partial Sidelite Mullion with 40" Notch 10' 6"	5.2.6
		TSF-85 R/L	8' 0" End Hinge Jamb 10' 6"	5.2.2	N/A		TSF-134 R/L	Blank Partial Sidelite Mullion 40" Notch 7' 0"	5.2.6
		TSF-86	8' 0" Blank Mullion	5.2.3	N/A		TSF-135 R/L	Single Strike Partial Sidelite Mullion 40" Notch 7' 0"	5.2.6
		TSF-87 R/L	8' 0" Single Hinge Mullion 10' 6"	5.2.2					
		TSF-88 R/L	8' 0" Hinge & Strike Mullion 10' 6"	5.2.2					
N/A		TSF-89	Snap-in Filler with 5/8" Stop 12' 1"	5.2.4					
	See TSF-56	TSF-93	6' 8" Removable Mullion Double Strike	5.2.3					
	See TSF-57	TSF-94	7' 0" Removable Mullion Double Strike	5.2.3					
N/A		TSF-95	MU Filler Plate 5/8" Stop 12' 1"	5.2.4					
	See TSF-58	TSF-96	7' 2" Removable Mullion Double Strike	5.2.3					
	See TSF-59	TSF-98	8' 0" Removable Mullion Double Strike	5.2.3					
		TSF-99	Blank Mullion 4" Face 10' 6"	5.2.5					
							3GB0090P001	Snap-in Glazing Bead 5/8" x 8' 0"	5.2.7

ARCHITECTURAL STICKS

- End jambs = 12' 1" Length
- Mullions = 10' 6" length

END JAMBS - RIGHT OR LEFT HAND

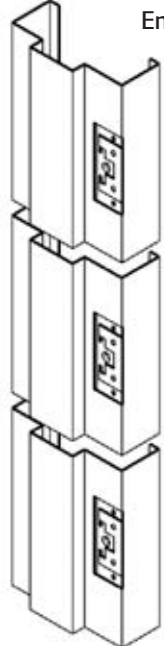
A. **Description:** 12' 1" open frame section with square end cutoff.

B. **Nomenclature:**

Description	Nominal Door Size	TSF No.
End Hinge Jamb 12'1"	6'8"	TSF-24
	7'0"	TSF-25
	7'2"	TSF-39
	8'0"	TSF-85
End Strike Jamb 12'1" ASA	6'8"	TSF-26
	7'0"	
	7'2"	
Not shown	8'0"	

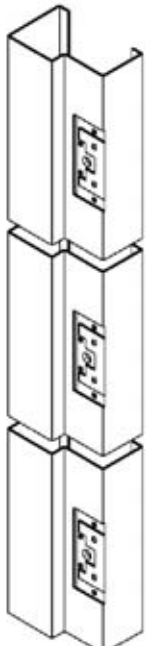
NOTES:

1. Specify right or left hand when ordering.
2. Not available with transom bar notch.



Double Rabbet

End Hinge Jamb shown



Single Rabbet

INTERMEDIATE MULLIONS - RIGHT OR LEFT HAND

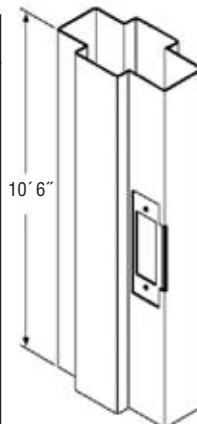
A. **Description:** 10' 6" closed frame section with square end cutoff.

B. **Nomenclature:**

Description	Nominal Door Size	TSF No.
Single Strike Mullion. ASA Strike prepped on one (1) rabbet. Opposite rabbet blank	6'8"	TSF-41
	7'0"	
	7'2"	
	8'0"	
Single Hinge Mullion. Hinges prepped on one (1) rabbet. Opposite rabbet blank.	6'8"	TSF-42
	7'0"	TSF-43
	7'2"	TSF-44
	8'0"	TSF-87
Hinges prepped on one (1) rabbet. ASA Strike prepped on opposite rabbet.	6'8"	TSF-45
	7'0"	TSF-46
	7'2"	TSF-47
	8'0"	TSF-88

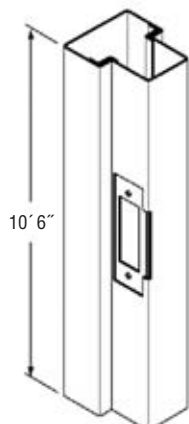
NOTES:

Specify right or left hand when ordering.



Double Rabbet

Single Strike Mullion shown



Single Rabbet

ARCHITECTURAL STICKS

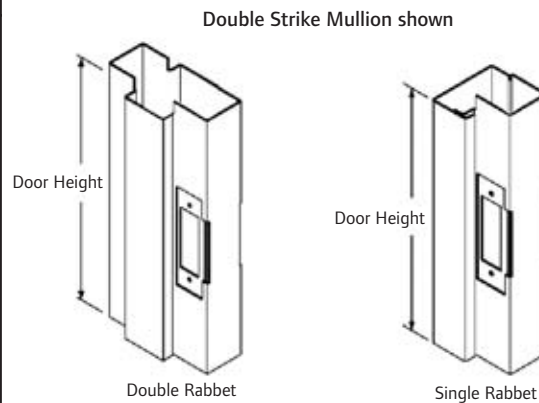
Intermediate mullions are sized to the specified nominal door height and notched for the frame head stop.

INTERMEDIATE MULLIONS - RIGHT OR LEFT HAND

A. **Description:** Closed frame section with notched end cutoff, cut to door height shown.

B. **Nomenclature:**

Description	Size	TSF No.
Double Strike Mullion. ASA Strikes prepped on both rabbet.	6'8"	TSF-6
	7'0"	TSF-11
	7'2"	TSF-32
	8'0"	TSF-80
Double Hinge Mullion. Hinges prepped on both rabbet.	6'8"	TSF-7
	7'0"	TSF-12
	8'0"	TSF-81
Single Hinge Mullion. Hinges prepped on one (1) rabbet. Opposite rabbet blank.	6'8"	TSF-9
	7'0"	TSF-14
	7'2"	TSF-35
	8'0"	TSF-83
Single Strike Mullion. ASA Strike prepped on one (1) rabbet. Opposite rabbet blank.	6'8"	TSF-10
	7'0"	TSF-15
	7'2"	TSF-36
	8'0"	TSF-84
Hinges prepped on one (1) rabbet. ASA Strike prepped on opposite rabbet.	6'8"	TSF-8
	7'0"	TSF-13
	7'2"	TSF-34
	8'0"	TSF-82
Blank Mullion. No hardware preps.	7'0"	TSF-20
	8'0"	TSF-86



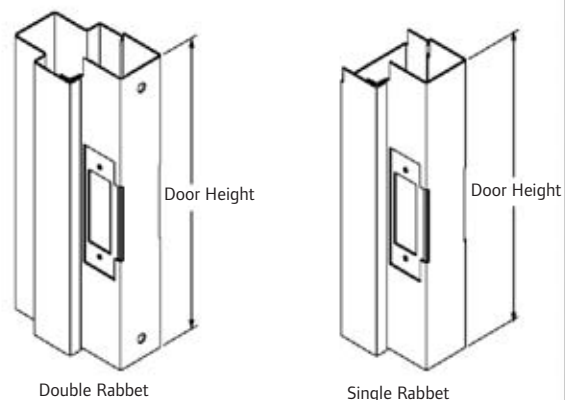
NOTES: Specify right or left hand when ordering.

REMOVABLE MULLION

A. **Description:** Closed frame section with double strike and with ends notched for installation into frame with mounting clips.

B. **Nomenclature:**

Description	Size	TSF No.
Double Rabbet Mullion	6'8"	TSF-56
	7'0"	TSF-57
	7'2"	TSF-58
	8'0"	TSF-59
ASA		
Single Rabbet Mullion	6'8"	TSF-93
	7'0"	TSF-94
	7'2"	TSF-96
	8'0"	TSF-98
ASA		



NOTES:

1. See Parts Price List to order mounting clips.
2. Single rabbet mullions can be used with double rabbet frames.
3. Refer to page 5.3.6 for installation details.

ARCHITECTURAL STICKS — 10'6" square end cut corner post - Weld-in and snap-in filler plates

CORNER POST
 A. **Description:** 10'6" corner post with square end cutoff
 B. **Nomenclature:**

Description	Size	TSF No.
2 Way Corner Post		
1 9/16" Outside Rabbet	10'6"	TSF-51
1 15/16" Outside Rabbet	10'6"	TSF-52
3 Way Corner Post		
1 9/16" Outside Rabbet	10'6"	TSF-53
1 15/16" Outside Rabbet	10'6"	TSF-54

2-Way Corner Closure 3-Way Corner Closure

FILLER PLATES - WELD-IN AND SNAP-IN
 A. **Description:** 10'6" filler plate for use in open sections with square end cutoff.
 B. **Nomenclature:**

Description	Size	TSF No.
For use in F Series frames with 5/8" Stop	10'6"	TSF-22
Without Stop	10'6"	TSF-27
Snap-in with 5/8" Stop	10'6"	TSF-89
For use in MU series frames with 5/8" Stop	10'6"	TSF-95

Double Rabbet with Stop TSF-22 Single Rabbet with Stop TSF-22
 Filler Plate without Stop TSF-27 Snap-in Filler Plate with Stop TSF-89 Multi-use Filler Plate with Stop TSF-95

NOTES:
 1. TSF-22, 27 and 95 are designed to be welded into throat opening of frame section.
 2. TSF-89 snaps into the throat opening of the F-Series frame.
 3. See Parts Price List for additional snap-in filler clips.

10'6" Head and Sill Sections - Flush and recessed sill sections — ARCHITECTURAL STICKS

HEAD OR SILL SECTIONS

A. **Description:** 10'6" open frame section with square end cutoff.

B. **Nomenclature:**

Description	Size	TSF No.
Rabbetted F section 2" Face	10'6"	TSF-21
Rabbetted F section 4" Face	10'6"	TSF-23
Cased Open F section 2" Face	10'6"	TSF-40
Rabbetted MU section 2" Face	10'6"	TSF-21

NOTES: F-Series rabbetted and cased open sections are available with 1" face.

The diagrams show various cross-sections of the 10'6" head and sill sections. On the left, there are two sections labeled 'With 2" Face' and one labeled 'With 4" Face'. On the right, there are two sections labeled 'Cased Opening With 2" Face' and 'Multi-use With 2" Face'.

SILL SECTIONS

A. **Description:** 10'6" open frame section with square end cutoff.

B. **Nomenclature:**

Description	Size	TSF No.
Double Rabbet 6 1/8" Face	10'6"	TSF-105
8 1/8" Face	10'6"	TSF-104
16 1/8" Face	10'6"	TSF-106
Single Rabbet Sill 8 1/8" Face x 1 15/16" Deep	10'6"	TSF-108

NOTES:

- Sill sections are galvanized as standard.
- Sill sections anchors are recommended for flush sill when length exceeds 5'0".

The diagrams show the double rabbet and single rabbet sill sections. The double rabbet section is shown with a length of 10'6" and a height of 6 1/8", 8 1/8", or 16 1/8". The single rabbet section is shown with a length of 10'6" and a height of 6 1/8", 8 1/8", or 16 1/8".

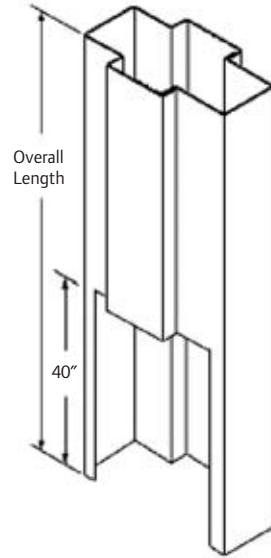
ARCHITECTURAL STICKS — Partial Sidelight Mullion

PARTIAL SIDELIGHT MULLION - RIGHT AND LEFT HAND

A. **Description:** Closed frame section with a 40" notch in the bottom, forming an open section with the proper throat opening. End cutoff as noted below. See chart for lengths available.

B. **Nomenclature:**

Description	TSF No.	Overall Length	End cutoff
Blank mullions			
• Stick length	TSF-132	126"	Square
• 7' 0" mullion	TSF-134	84"	Notched
Strike mullions			
• Stick length w / ASA	TSF-133	126"	Square
• 7' 0" mullion w / ASA	TSF-135	84"	Notched
Hinge mullions			
• 6' 8" Hinge mullion	TSF138	80"	Notched
• 7' 0" Hinge mullion	TSF139	84"	Notched
• Stick length w/ 6' 8" spacing	TSF140	126"	Square
• Stick length w/ 7' 0" spacing	TSF141	126"	Square

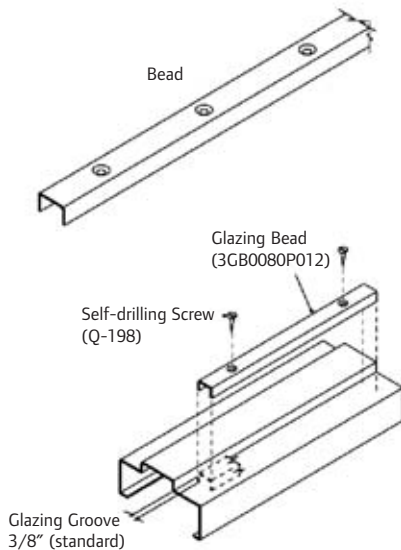


Glazing Beads - Screw-in and snap-in — ARCHITECTURAL STICKS

GLAZING BEADS - Screw-in and snap-in

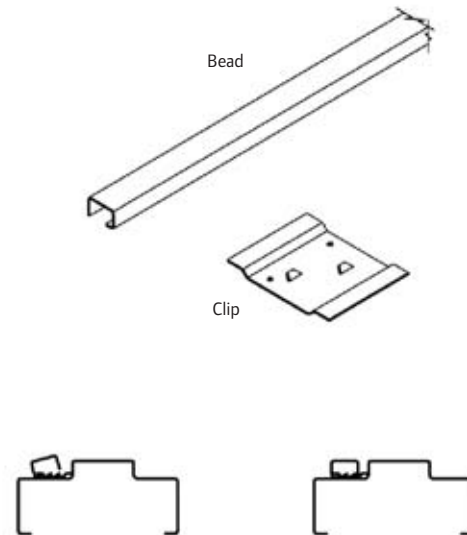
SCREW-IN BEAD

- A. **Description:** 1" wide x 5/8" high x 10'-0" long. 18 gage galvanized glazing bead with square end cutoff. Beads are dimpled for, and supplied with #8 x 1-1/4" oval head self drilling screws.
- B. **Nomenclature:** 3GB0080P012



SNAP-IN BEAD

- A. **Description:** 1" wide x 5/8" high x 8'-0" long 18 gage galvanized glazing bead with square end cutoff. Beads are designed to snap over a mounting clip that is attached to the frame by the distributor. Clips are supplied with the bead (fasteners by others).
- B. **Nomenclature:** 3GB0090P001



Standard Bead Installation

1. Cut glazing bead to length required (Note: horizontal glazing beads run the full width of the openings and vertical glazing beads stop when they meet the horizontal beads).
2. Locate the bead from the stop as required. The normal location for 1/4" glass is 3/8".
3. Using the glazing bead as a template, install screws through the pre-punched holes as required.
 - a. If an automatic screw gun driver is being used, the screws will drill the necessary hole in the frame section.
 - b. If an automatic screw gun driver is not being used, drill a .149" diameter hole (number 25 drill) in the frame and install the screws.

Snap-in Bead Installation

1. Cut glazing bead to length required. (Note: horizontal glazing beads run the full width of the openings and vertical glazing beads stop when they meet the horizontal beads).
2. Mark the location of the clips on the frame section rabbet (14" on center).
3. Place the clips on the marks against the stop so that the barbs point toward the stop.
4. Attach the clips to the frame rabbet using one of the following methods:
 - a. Match drill through the holes in the clip with a number 32 drill (.116" diameter) and install #6 x 1/2" round head or pan head sheet metal screws (screws by others).
 - b. Match drill through the holes in the clip with a number 30 drill (.128" diameter) and install 1/8" diameter x 1/8" grip stainless steel button head pop rivets (pop rivets by others).
5. Insert "turned-in leg" of the bead under the offset edge in the clip and hammer the bead down over the barbs on the clip.
Be sure to install horizontal beads first.
6. Snap-in glazing beads are not to be used for label applications.