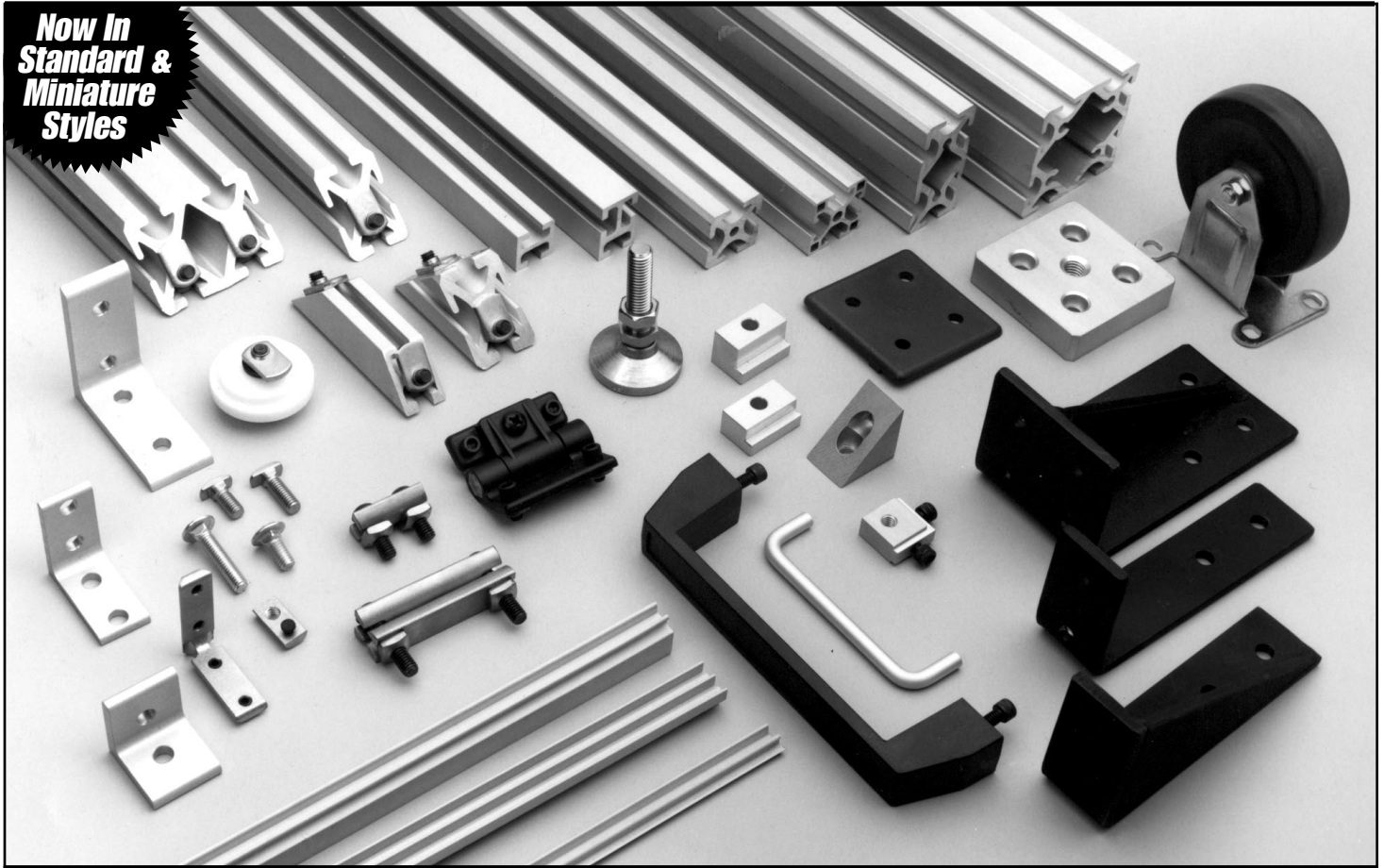


MODULAR FRAMING ELEMENTS STRUCTURAL EXTRUSIONS

MOUNTING HARDWARE AND ACCESSORIES

*Now In
 Standard &
 Miniature
 Styles*



PIC-STIX* modular framing elements offer a simplified approach to structural construction that is becoming State-of-the-Art for industrial and laboratory applications.

The system consists of an assortment of anodized aluminum **PIC-STIX** extrusions in combination with a wide range of joining and fastening elements and accessories.

The **PIC-STIX** system allows you to construct structures of many configurations and sizes. It is easy to assemble various structures without special training or tooling. A few simple hand tools are all that is required.

All joint connections are fastened together to provide flexibility and quick changeover as well as reuse of all elements.

PIC-STIX —

Extrusions with T-Slot grooves are clear anodized for corrosion free finish. The longitudinal slots are utilized for inserting

T-Bolts and nuts anywhere along its length to attach connecting brackets and accessories.

The **PIC-STIX** elements consists of:

- Extrusions: Light and regular extrusions of various constructions
- Mounting Components: Extrusion Corners, various Brackets and Braces
- Fastening Hardware: T-Nuts, Cross and End Connectors, Turn & Lock T-Bolts, T-Bolts, Mounting Screws and Washers
- Accessories: Leveling and Anchoring Plates, Adjustable Legs, Casters, Handles, Hinges, End Plates, Gaskets, and Door Slide Tracks.

Typical applications for modular construction elements:

- Industrial & Laboratory Apparatus
- Machine Support Frames
- Linear Motion Systems
- Work Stations - Benches
- Handling & Robotic Systems
- Tooling & Fixture Supports
- Machine Guarding Structures

Ordering Flexibility

PIC Design makes it easy for you to incorporate **PIC-STIX** in your design. Order any of the following options:

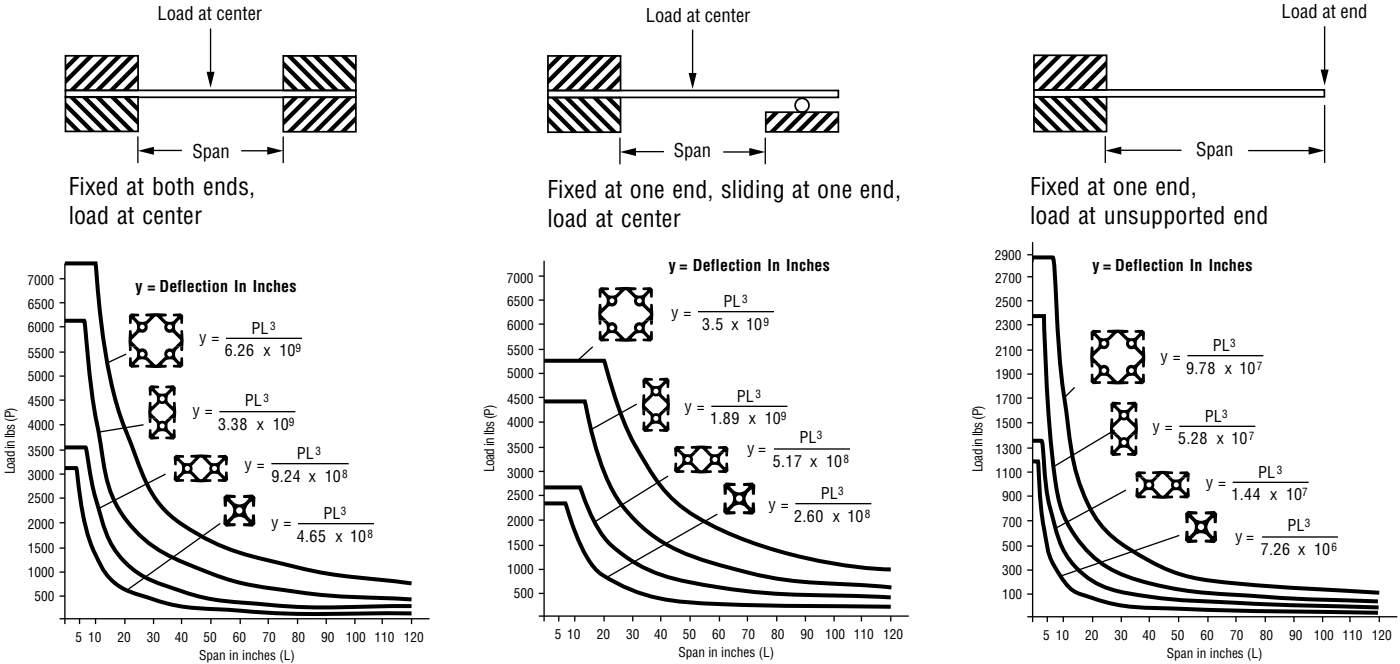
- Order **PIC-STIX** system components so that you can design, cut and assemble in your shop the system you need when you need it.
- Design the system you want including detailed extrusion lengths, provide a bill of material and let PIC provide you with a kit of components ready for assembly in your shop.
- Provide PIC with a detailed print and bill of materials, and have PIC assemble and ship the completed system to you. This option works best when **PIC-STIX** are used as a platform for a PIC Linear Motion System.
- Now also available in miniature size using 1/4"-20 hardware.

TECHNICAL SECTION

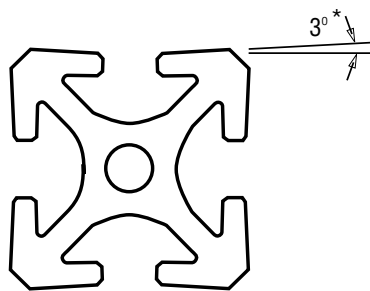
Structural Design Guidelines — Standard

Individual profile length and load requirements should not exceed the curve in any load example. If this occurs, choose a profile with a larger section modulus to stay below the curve.

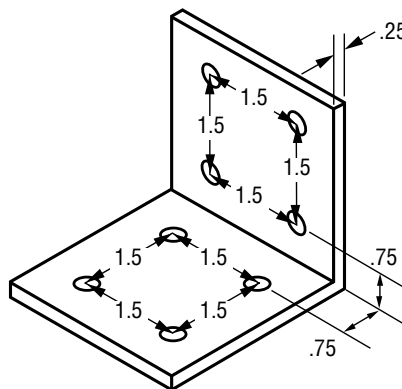
Load Condition:



PIC-STIX					
Profile Part Number	SX3030	SX1530	SX1530	SX1515	SX1515L
Moment of Inertia-in ⁴	3.26	.481	1.173	.242	.108
Section Modulus-in ³	2.173	.641	1.76	.323	.136



* Angle is 1° on SX1010L, SX1015L, SX1515L, and SX1545L



All **PIC-STIX** extrusions have a 1 or 3 degree decline from extrusion edge to slot centerline. When fasteners are properly tightened, the feature serves as a lock mechanism to keep them tight.

Standard mounting and connecting brackets have clearance holes for 5/16" dia. connecting screws which are all on .75" and 1.5" centers. PIC fastener brackets, extrusions, hardware and accessories provide an unlimited system for structural design and assembly.

Suggested Applications

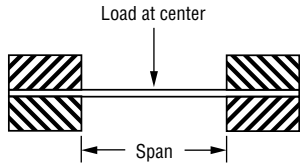
- **SX1010L** (1" x 1") — Light
Ideal for machine guards, enclosures, and displays.
- **SX1015L** (1" x 1 1/2") — Light
Enclosures, benches.
- **SX1515L** (1 1/2" x 1 1/2") — Light
Light load bearing structures, guarding and lightweight support frames.
- **SX1515** (1 1/2" x 1 1/2") —
Medium load bearing structures, a good combination of structural strength in a compact size.
- **SX1530** (1 1/2" x 3") —
Used for larger and stronger structures and machine frames. The center of this extrusion can be used to run air or electrical lines.
- **SX3030** (3" x 3") —
For larger structures where maximum strength is desired. The center of these extrusions can also be used to run air or electrical lines.

TECHNICAL SECTION

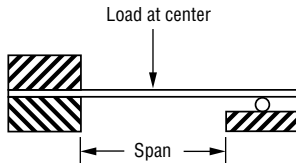
Structural Design Guidelines — [Miniature]

Individual profile length and load requirements should not exceed the curve in any load example. If this occurs, choose a profile with a larger section modulus to stay below the curve.

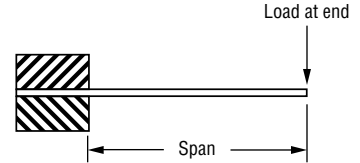
Load Condition:



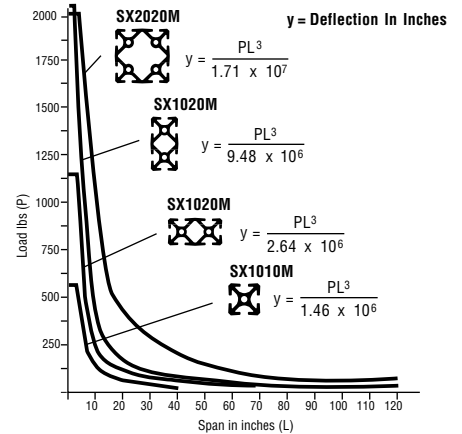
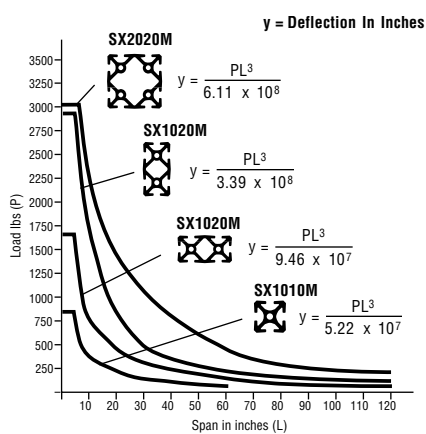
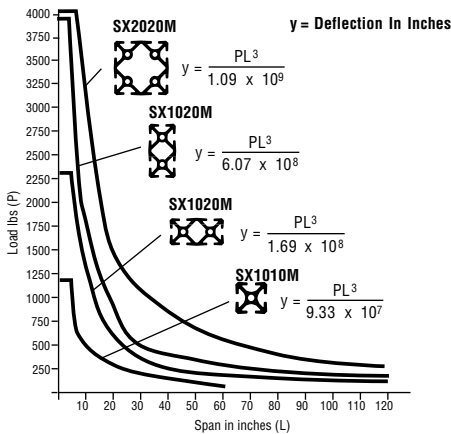
Fixed at both ends, load at center







Fixed at one end, sliding at one end, load at center



Fixed at one end, load at unsupported end



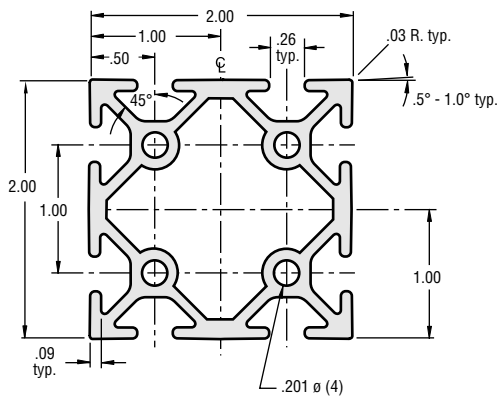
PIC-STIX				
Profile Part Number	SX2020M	SX1020M	SX1020M	SX1010M
Moment of Inertia-in ⁴	.570	.316	.088	.049
Section Modulus-in ³	.570	.316	.176	.097
Est. Area-in ²	1.248	.807		.451
Weight / ft - lbs.	1.468	.949		.530

Material: 6105-T5 Aluminum

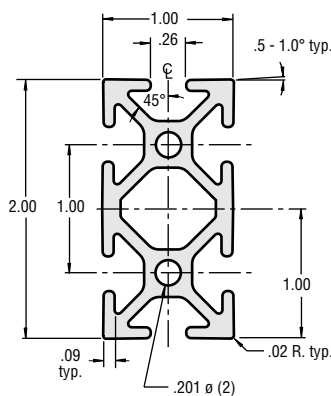
Finish: Clear Anodize

Miniature Framing Elements use 1/4-20 Hardware and appropriately noted components

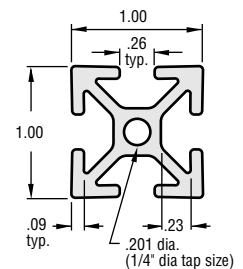
Note: Miniature dimensions and part numbers are in [brackets]



SX2020M



SX1020M



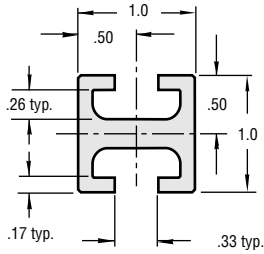
SX1010M

MODULAR FRAMING ELEMENTS

PIC-STIX Structural T-Slot Extrusions

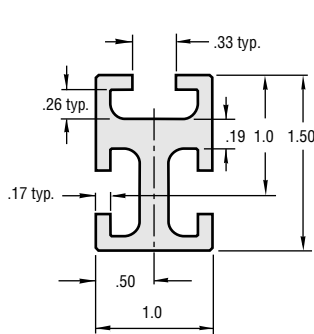
Light Aluminum Extrusions

SX1010L*

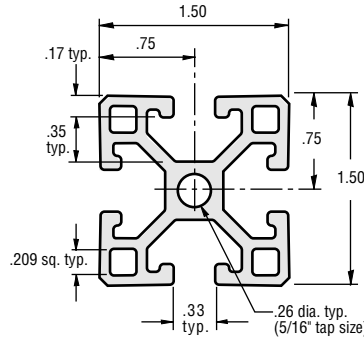


*Material: 6061-T6 Aluminum

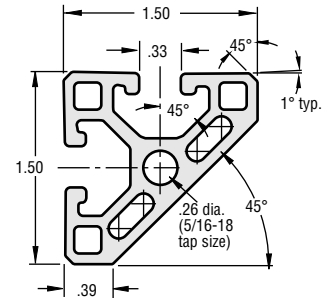
SX1015L*



SX1515L

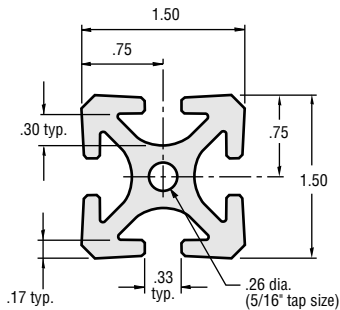


SX1545L

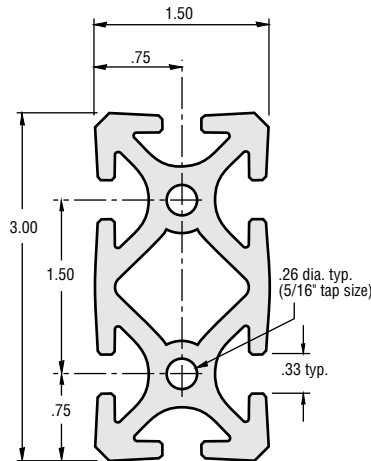


Aluminum Extrusions

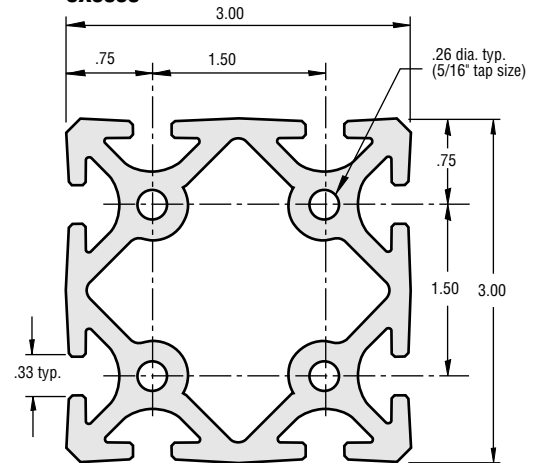
SX1515



SX1530



SX3030



Material: 6105-T5 Aluminum

Finish: Clear Anodize

Modulus Of Elasticity: 11,000,000 PSI

PIC-STIX — T-Slot Extrusions

Basic Size (Inch)	Wall Type	Maximum Length (Inch)	Weight per Foot (lbs.)	Estimated Area (Square Inch)	* Part Number (Length Code)
1.0 x 1.0	Light	96	.60	.496	SX1010L - □□□□
1.0 x 1.5	Light	96	.90	.746	SX1015L - □□□□
1.5 x 1.5	Light	144	1.05	.878	SX1515L - □□□□□
1.5 x 1.5 corner	Light	144	.86	.729	SX1545L - □□□□□
1.5 x 1.5	Standard	144	1.40	1.164	SX1515 - □□□□□
1.5 x 3.0	Standard	144	2.48	2.051	SX1530 - □□□□□
3.0 x 3.0	Standard	144	3.83	3.188	SX3030 - □□□□□
1.0 x 1.0	Miniature	144	.53	.451	SX1010M - □□□□□
1.0 x 2.0	Miniature	144	.95	.807	SX1020M - □□□□□
2.0 x 2.0	Miniature	144	1.47	1.248	SX2020M - □□□□□

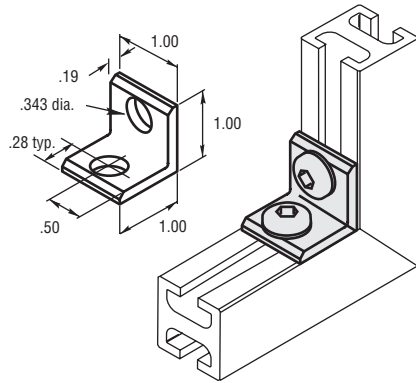
NOTES: 1. Custom cut lengths on request — contact factory
 2. Pre-drilled access holes, connector holes, tapped end holes available on request — contact factory
 3. Up to 106 inch lengths shipped via UPS; over 106 inch lengths shipped via truck

* Custom lengths may be ordered to .01" increments up to the maximum length. The tolerance on cuts is $\pm 1/32"$. For a precision milled cut with a tolerance of $\pm .005"$, add "P" after length in the part number.
 All custom lengths will carry an appropriate cut off charge.

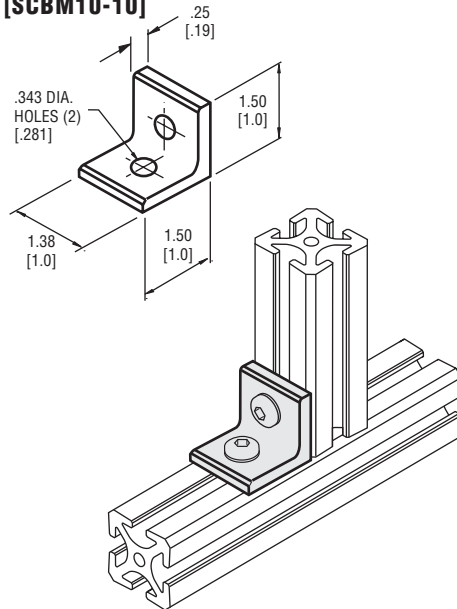
MOUNTING COMPONENTS

Connecting Angle Brackets — Standard & [Miniature]

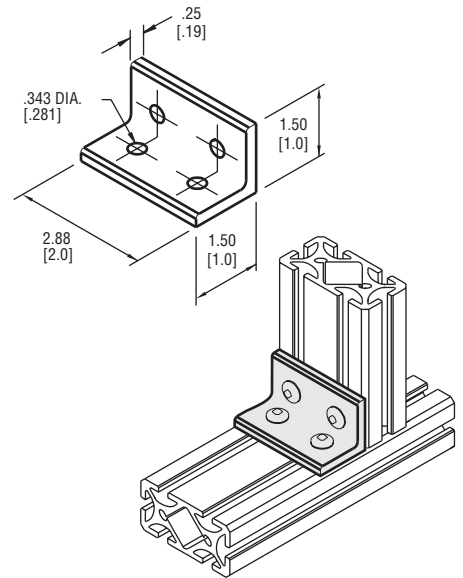
SCB1-10*



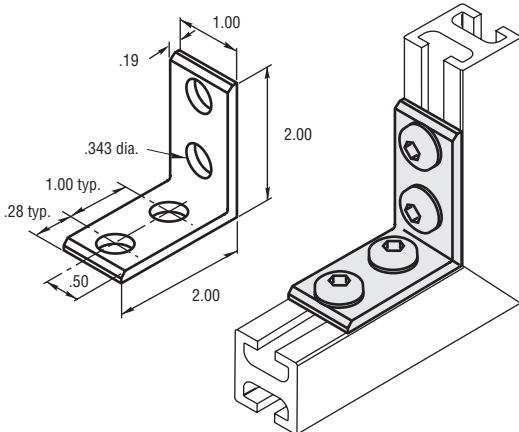
**SCB15-15
[SCBM10-10]**



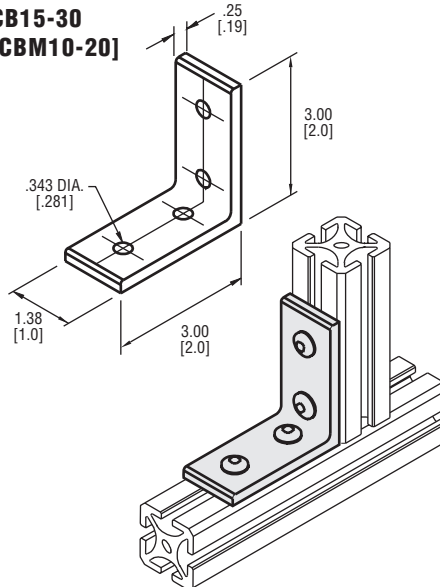
**SCB30-15
[SCBM20-10]**



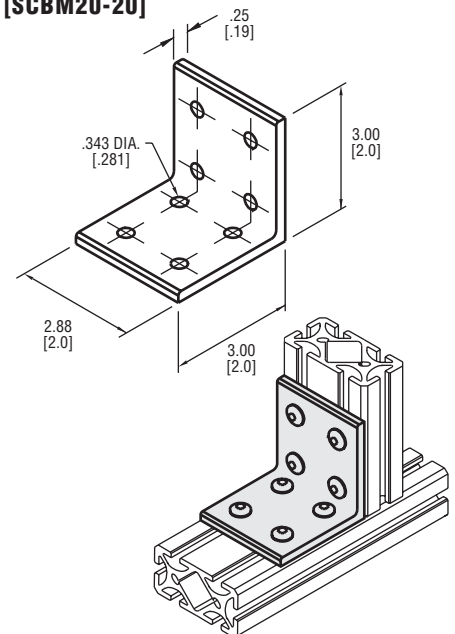
SCB1-20*



**SCB15-30
[SCBM10-20]**



**SCB30-30
[SCBM20-20]**



Requires user to select and order separately .63" length button or socket head capscrews and T-Nut from Fastening Hardware section.

*Note: Use .5" length screws.

Inside corner brackets eliminate special machining operations and allow you to construct your framework without counterbores or access holes using only simple hand tools.

Material: 6061 Aluminum

Finish: Clear Anodize

[Miniature]

Select and order separately 1/4 x .5" button or socket head capscrews and T-Nut from Fastening Hardware section

MOUNTING COMPONENTS

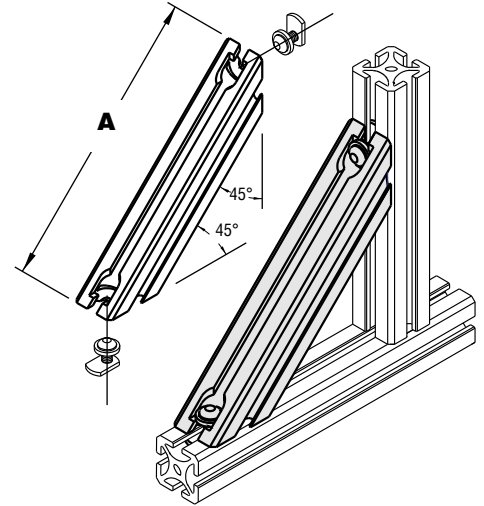
Extrusion Corners / 45° Supports — Standard & [Miniature]

Extrusion corners /45° supports are designed to strengthen corners and provide a flush and clean connection. The support connects with hardware consisting of socket head cap screws, washers and economy T-nuts (hardware Included).

Material: 6061-T6 Aluminum

Finish: Clear Anodize

PIC-STIX Extrusion Part Number	A (Inches)	Corner Part Number
SX1010L	4.00	SCX1010-4
SX1515L	3.00	SCX1515-3
SX1515L	9.00	SCX1515-9
SX1515	3.00	SCX1515-3
SX1515	9.00	SCX1515-9
SX1530	3.00	SCX1530-3
SX1530	9.00	SCX1530-9
SX3030	3.00	SCX3015-3
SX3030	9.00	SCX3015-9
SX1010M	6.00	SCX1010M-6
SX1020M	6.00	SCX1020M-6



MOUNTING BRACKETS

Panel Mounting Angle, Corner Joint & Straight Bracket — Standard & [Miniature]

Corner Brackets

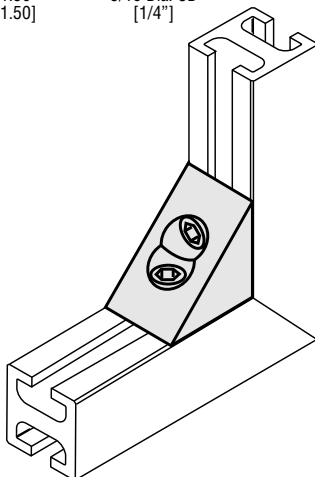
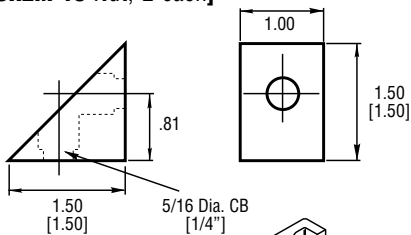
Use with extrusion part numbers SX1010L and SX1015L. Requires SCH8-05 screw and SCH2-10 nut (2ea).

Material: Aluminum

Finish: Clear Anodize

SCX1010-1

[SCX1010M-1 requires SCH8M-05 & SCH2M-10 Nut, 2 each]



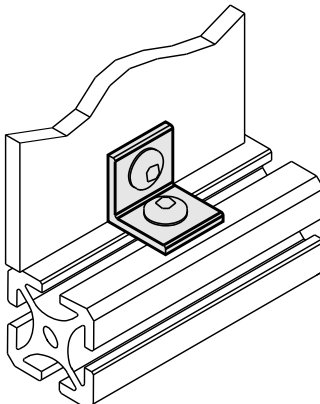
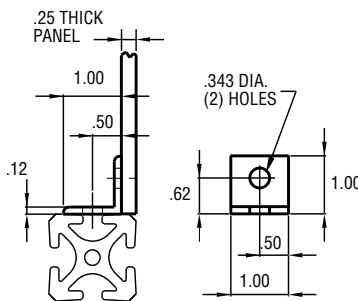
Panel Mounting Angle

Requires SCH9-06 and nut, plus appropriate panel mounting hardware.

Material: Aluminum

Finish: Clear Anodize

SCB1



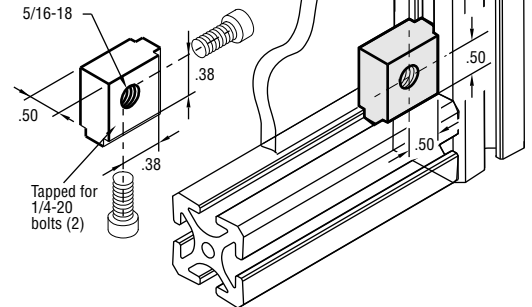
Corner Joint and Panel Bracket

Hardware Included. Access hole suggested for tightening screw.

Material: Aluminum

Finish: Clear Anodize

SCB1-CP

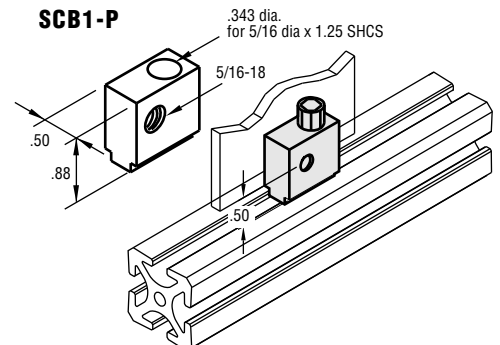


Panel Mount

Hardware Included.

Material: Aluminum, **Finish:** Clear Anodize

SCB1-P



MOUNTING COMPONENTS

Adjustable Joint and Steel Corner Braces — Standard & [Miniature]

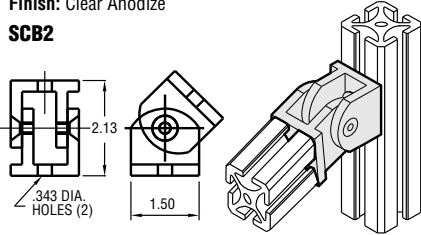
Adjustable Joint Connector

Suggested hardware SCH8-06 screw with T-Nuts (2).

Material: Aluminum

Finish: Clear Anodize

SCB2

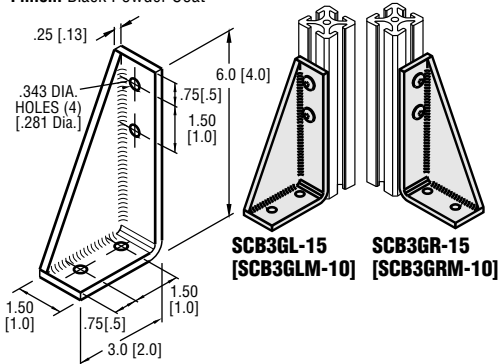


Reinforced Corner Brace

Suggested hardware SCH9-06 screw and SCH1 nut (4).
[SCH9M-04 screw and SCH1M nut (4)]

Material: Alloy Steel

Finish: Black Powder Coat



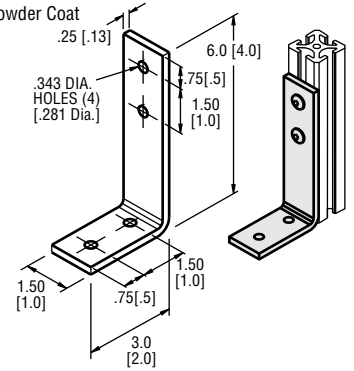
Corner Brace

Suggested hardware SCH9-06 screw and SCH1 nut (4).
[SCH9M-04 screw and SCH1M nut (4)]

Material: Alloy Steel

Finish: Black Powder Coat

SCB3-15
[SCB3M-10]



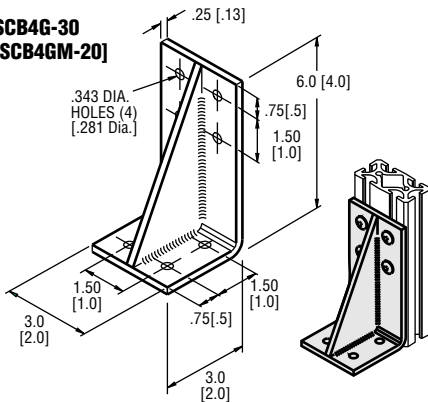
Corner Brace Reinforced

Suggested hardware SCH9-06 screw and SCH1 nut (8).
[SCH9M-04 screw and SCH1M nut (8)]

Material: Alloy Steel

Finish: Black Powder Coat

SCB4G-30
[SCB4GM-20]



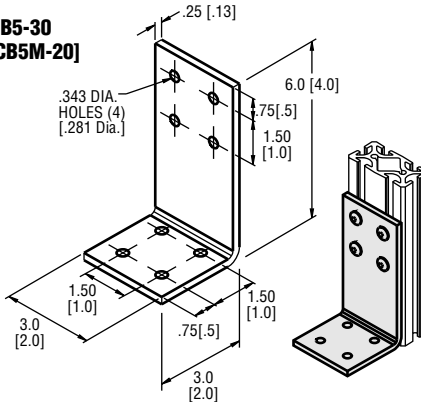
Corner Brace

Suggested hardware SCH9-06 and SCH1 nut (8).
[SCH9M-06 screw and SCH1M nut (8)]

Material: Alloy Steel

Finish: Black Powder Coat

SCB5-30
[SCB5M-20]

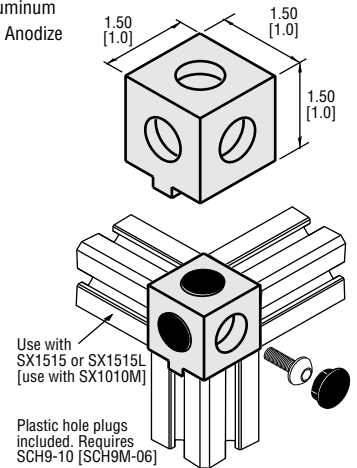


Corner Block

Material: Aluminum

Finish: Clear Anodize

SCB6
[SCB6M]

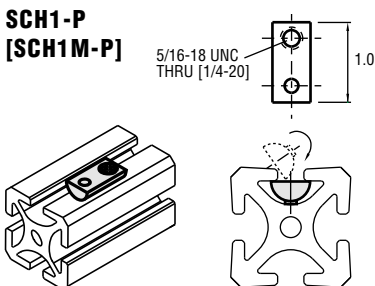


FASTENING HARDWARE — STANDARD & [MINIATURE]

Pivot T-Nuts

Loads into extrusion from the side.
Not to be used on SX1010L and SX1015L.

SCH1-P
[SCH1M-P]

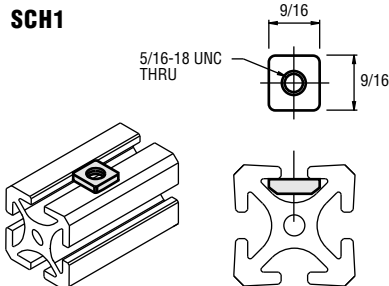


Material: Alloy Steel
Finish: Zinc Plate

Connector T-Nuts

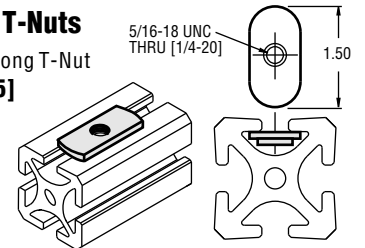
Loads into extrusion from end only.

SCH1



Economy T-Nuts

SCH2-15 Long T-Nut
[SCH2M-15]



SCH2-10 T-Nut
[SCH2M-10]

