VALU™ GUARD

Safety Enclosure *and* Guarding Systems
Stainless Steel *or* Aluminum
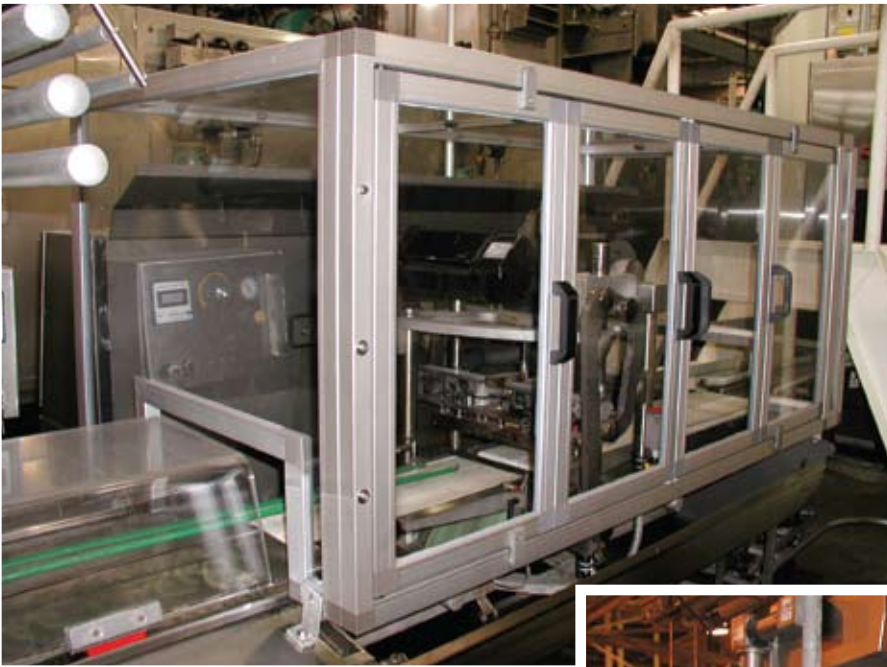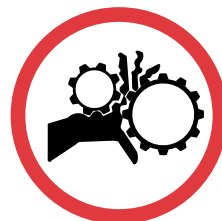
SYSTEM PLAST
CONVEYOR COMPONENTS

VALU GUIDE

NOLU PLASTICS

SMP
Solus Machined Plastics

Solus
A System Plast Group Company
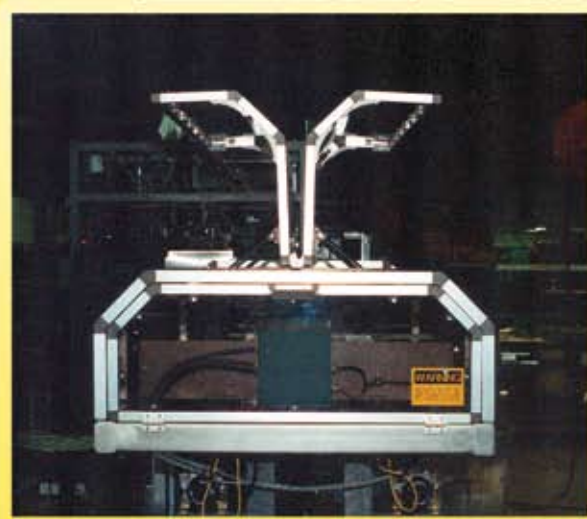
WARNING

DANGER

OPEN GEARS
WATCH HANDS
AND FINGERS

**KEEP HANDS
CLEAR**

CAUTION

OPEN GEARS
WATCH HANDS
AND FINGERS

DANGER

CAUTION

FLEXTECH™

✔ **Quality Finished Appearance**
✔ **Heavy Gauge Square Aluminum Tubing**
✔ **Safety Enclosure Applications**
✔ **Reinforced Plastic Corner Joints**

Tube Shape: square
Tube Material: anodized aluminum
Tube Size: 1" x 1" and 1.19" x 1.19"
Applications: Safety enclosures for machinery and other types of equipment. Also used as a framing system for environmental enclosures, clean rooms, instrument enclosures, and trade show or retail displays. The combination of versatility, ease of construction and a clean, professional appearance makes FlexTech the best choice for original equipment manufacturers and end users alike.

Table of Contents

FlexTech

SpeedFrame™

✔ **Industrial and Washdown Applications**
✔ **Square Stainless or Aluminum Tubing**
✔ **Metal or Reinforced Plastic Corner Joints**

Tube Shape: square
Tube Material: brushed stainless steel or anodized aluminum
Tube Size: 1" x 1"
Applications: Safety enclosures, industrial framing and sanitary enclosures. Excellent for corrosive wash down environments that require a stainless steel structure.

SpeedFrame

Guarding Products from *Solus⊘*® Improve the Safety and Appearance of Your Machinery!

A System Plast Group Company

Protective enclosures keep material contained within the machine area, and prevent people or items from accidentally entering the operating machine's space. When properly constructed, the guards enhance the appearance of OEM equipment.

The two product lines, FlexTech and SpeedFrame, are based on the concept that with a pre-engineered system of components, custom structures can be made faster, more attractive and more economically than by welding or other traditional fabrication methods.

These framing systems from Solus can extend their versatility to almost any industry. Build shelves, counters, displays, cubicles, or even entire freestanding rooms. With a full line of accessories, the possibilities are only limited by your imagination.

For more information, please contact your local District Manager or one of our helpful Customer Service Representatives.

Accelerating Production Through Innovation

Rancho Santa Margarita, California
Indianapolis, Indiana
Sanford, North Carolina
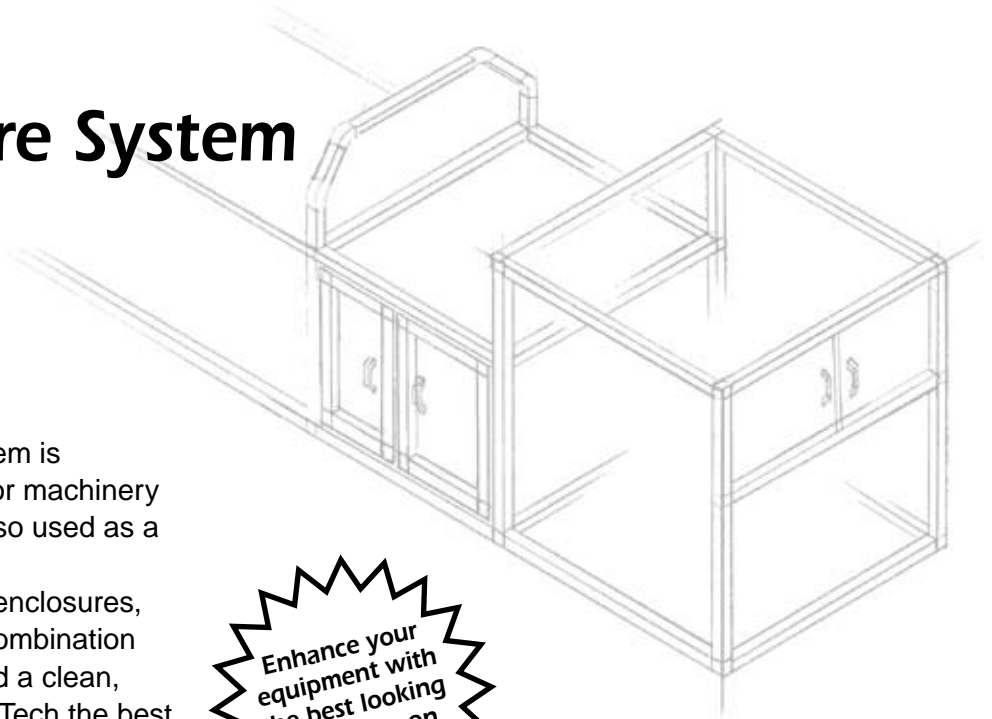Tlajomulco de Zuñiga, Jalisco, Mexico

866-765-8744
www.solusii.com

SYSTEM PLAST CONVEYOR COMPONENTS

VALU GUIDE®

NOLU PLASTICS

SMP SOLUS MACHINED PLASTICS
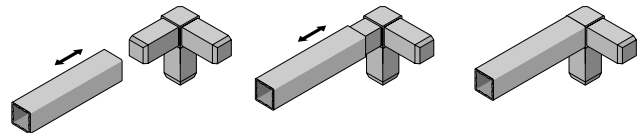
FLEXTECH™

Safety Enclosure System

The FlexTech Safety Enclosure System is used to fabricate safety enclosures for machinery and other types of equipment. It is also used as a framing system for environmental enclosures, cleanrooms, instrument enclosures, trade show and retail displays. The combination of versatility, ease of construction and a clean, professional appearance makes FlexTech the best choice for original equipment manufacturers and end users alike.

Enhance your equipment with the best looking enclosures on the market!

Features

◆ Heavy 14 gauge anodized aluminum extrusions - clear finish or Elox tint (matches stainless steel).

◆ Glass-reinforced nylon joints.

◆ All the hinges, handles, latches, hardware and other accessories you need.

◆ Create unlimited combinations of doors and panels with many different extrusion profiles.

Easy Assembly

Assemble frames using a soft-faced mallet to hammer in corner joints. Attach panels and hardware using just a drill and simple hand tools.
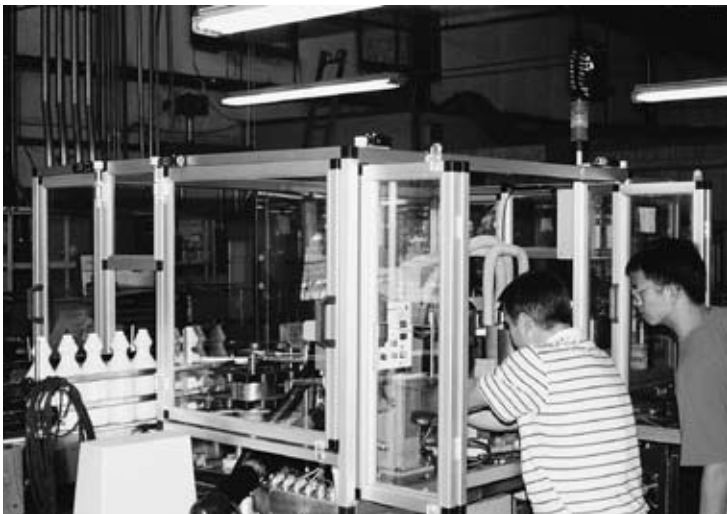
FlexTech's many extrusion profiles provide the flexibility to engineer several types of doors and panels on this labeling machine.

FlexTech's finished appearance compliments the quality construction of this cartoner.

Use FlexTech if you:

◆ Manufacture or use equipment required to meet safety requirements.

◆ Have structural or complicated design requirements.

◆ Must have a finished appearance without T-slots or channels that catch dirt and debris.

◆ Require specialized doors - framed, sealed, bifold or gull wing.

◆ Want a stainless steel appearance but need the economy and light weight of extruded aluminum.

The framed door on this bottling machine has a cutout for the control panel.

Satisfied customers include:

◆ Original equipment manufacturers required to have guarding on their machines.

◆ Process manufacturers retrofitting safety enclosures on plant equipment.

◆ Electronic enclosure manufacturers.

◆ Exhibit designers and fabricators.
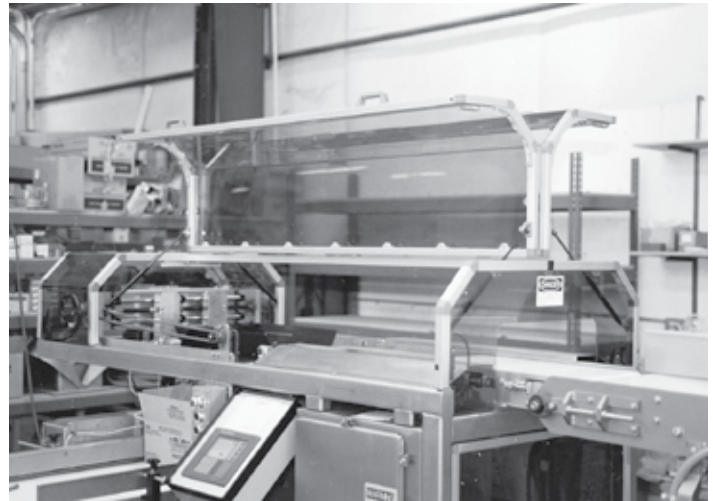
Gull wing doors with gas springs swing up and out of the way without obstructing aisle space.

This filler uses 6 ft. high bifold doors to fully enclose the star wheel while permitting unobstructed access.

Bifold doors on this free standing enclosure provide easy and unobstructed access to this bottling line.

3

FLEXTECH™
Typical Applications

Unlimited Versatility

A

B

C
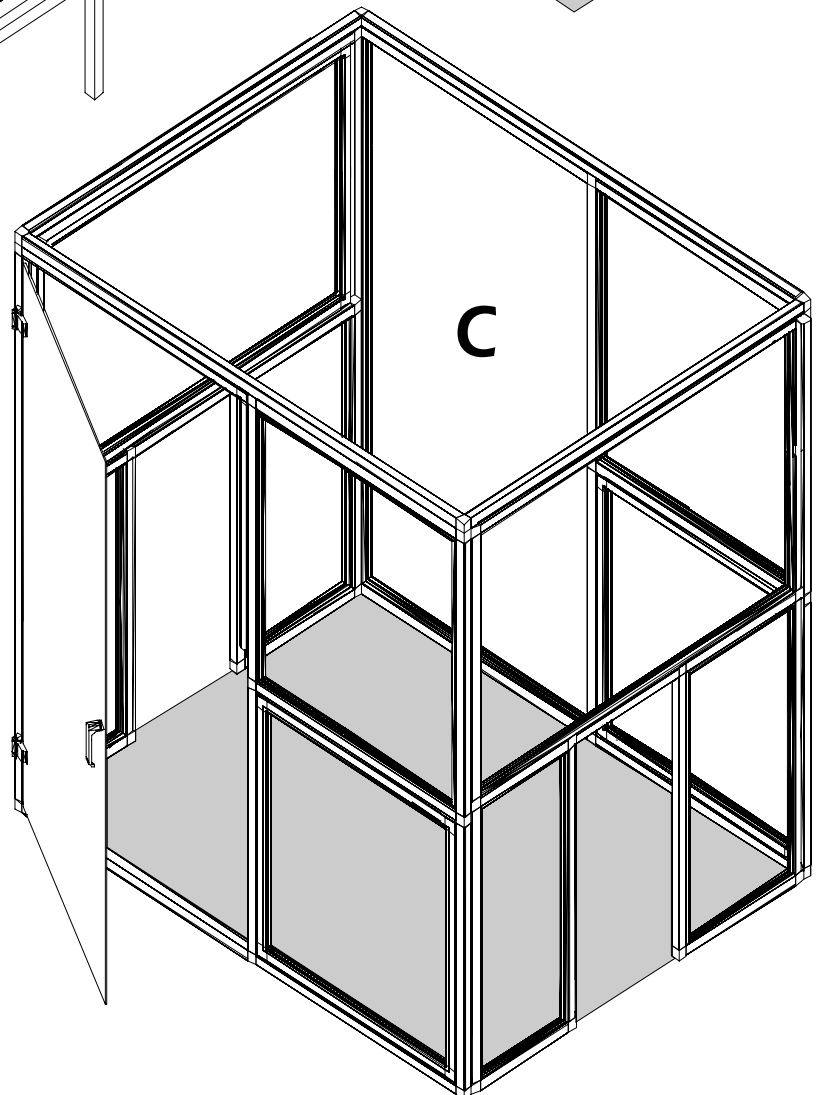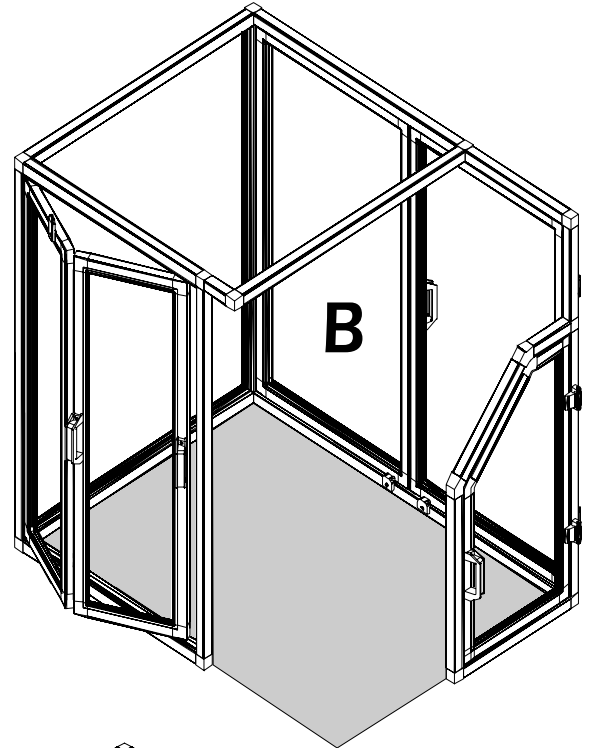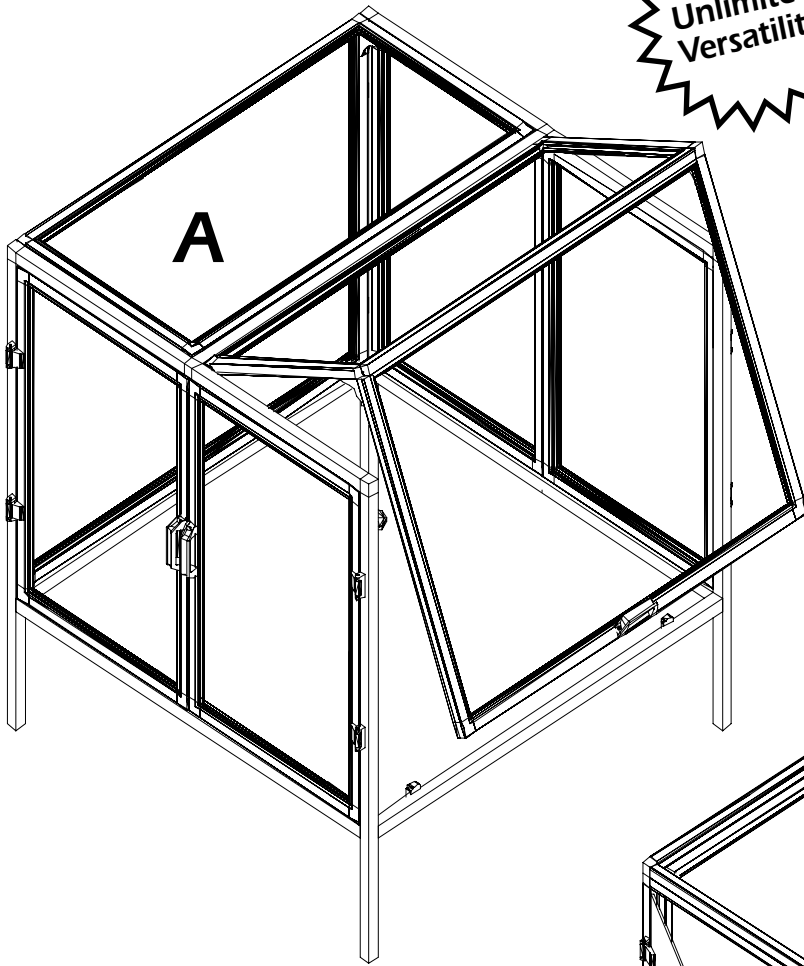
These typical applications were built by us from customer specifications:

A This fruit packager needed an enclosure with a large hatch opening for packaging machinery.

B This pharmaceutical manufacturer's enclosure required bifold doors and odd access angles.

C The sealed panel on this enclosure allows access to the machine while creating a containment area for dust generated in the production process.

Fixed Panel Options

Tube sizes: Series **25** 1" square for doors and windows

Series **30** 1-3/16" square for framing structures

Tube finishes: Clear anodized aluminum (**-AN**)

Elox anodized (**-LX**) a unique tint to match stainless steel

FlexTech Exclusive!

Corner joint sizes: Series **25** for 1" tubes and series **30** for 1-3/16" tubes
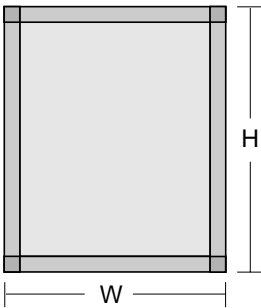
Framed Panel with Glazing Bead

The glaze bead seals the panel into place keeping out moisture and dust while stiffening and strengthening the frame.
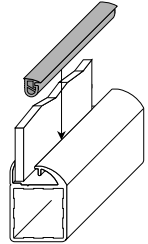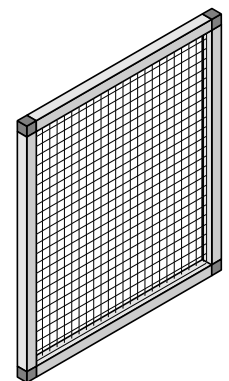
	Series **25**	**Series** **30**
Tube	FT-25T-PF-10-	FT-30T-PF-10-
Corner joint	FT-25-PA-J2M-GR	FT-30-PA-J2-GR
Tube length	H or W minus 3"	H or W minus 2-3/8"
Wire mesh or plastic panel dim...	H or W minus 2-3/16"	H or W minus 2-9/16"
Glaze bead	FT-PF-GZ1- (for 3/16"-1/4" thick panel)	
....	FT-PF-GZ2- (for 1/16"-1/8" thick panel or wire mesh)	

Framed Panel with Panel Mounting Blocks

The panel mounting blocks and clamps allow the panel to be removed or replaced. Used where a sealed panel is not required.
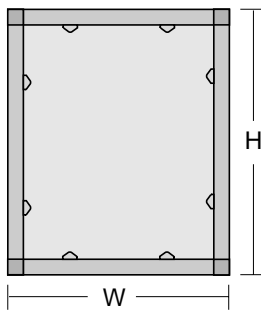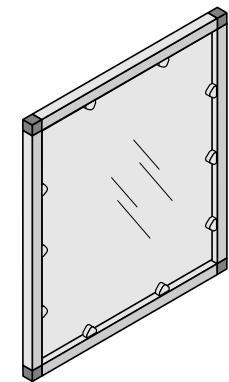
	Series **25**	**Series** **30**
Tube	FT-25T-10-	FT-30T-10-
Corner joint	FT-25-PA-J2-GR	FT-30-PA-J2-GR
Tube length	H or W minus 2"	H or W minus 2-3/8"
Plastic panel dimensions	H or W minus 2-1/16"	H or W minus 2-7/16"
Panel mounting block	FT-PMB-01-CLR (approx 6" apart)	
One sided pop-in panel clamp....	FT-PMC1-GR (approx 6" apart)	

Two sided pop-in panel clamp FT-PMC2-GR

Wire mesh or plastic panel dim .. H or W minus 2-3/4" .... H or W minus 3-1/8"

FT-PMB-01- shown.

See page 16.

FT-PMC1-GR- shown.

See page 16.

FT-PMC2-GR- shown.

See page 16.
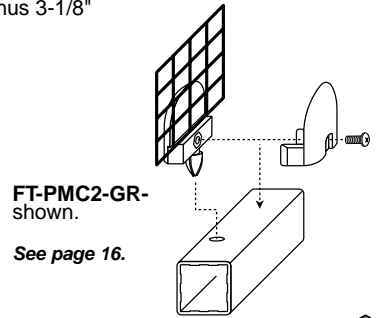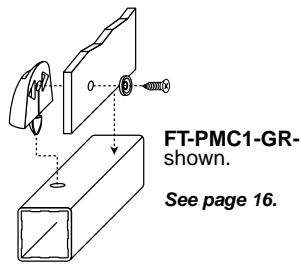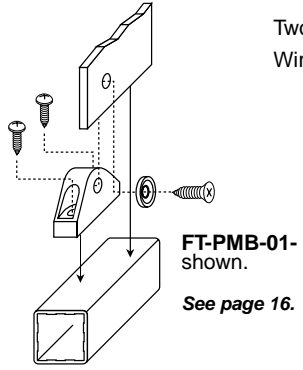
Framed Panel with Panel Mounting Tube

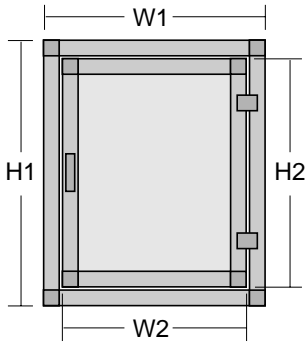The profile allows the panel to be removed or replaced. Screws are not visible from the outside of the enclosure.
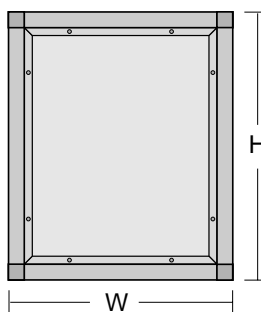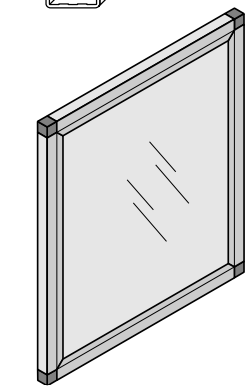
	Series **30**
Tube	FT-30T-PM-10-
Corner joint	FT-30-PA-J2-GR
Tube length	H or W minus 2-3/8"
Plastic panel dimensions	H or W minus 2-7/16"
Panel mounting kit	FT-PMK
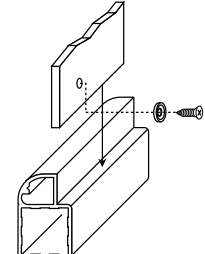
FLEXTECH
# Access Door Options

Framed Door

The free swinging style is the most common door, appropriate for most applications. The hatch style is most often used for wide doors or when full access to the door opening is needed.

If the FT-30T-FDS-10- extrusion is used, the door will seal against it.

Frame around door H_1 x W_1

Series $\boxed{30}$

Tube	FT-30T-10- or FT-30T-FDS-10-
Corner joint	FT-30-PA-J2-GR
Tube length	H_1 or W_1 minus 2-3/8"
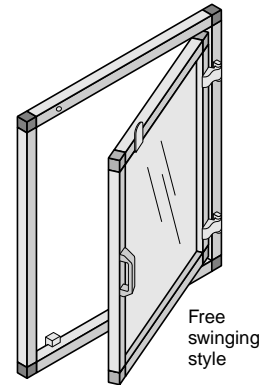
Door Panel $H_2 = H_1$ **minus 2-5/8"**
            $W_2 = W_1$ **minus 2-5/8"**
(allows for 1/8" gap between frame and door)

Series $\boxed{25}$

Tube	FT-25T-PF-10-
Corner joint (miterless)	FT-25-PA-J2M-GR
Tube length	H_2 or W_2 minus 3"
Wire mesh or plastic panel dim.	H_2 or W_2 minus 2-3/16"
Glazing bead	FT-PF-GZ1- (for 3/16"-1/4" thick panel)
....	FT-PF-GZ2- (for 1/16"-1/8" thick panel or wire mesh)

Free swinging style
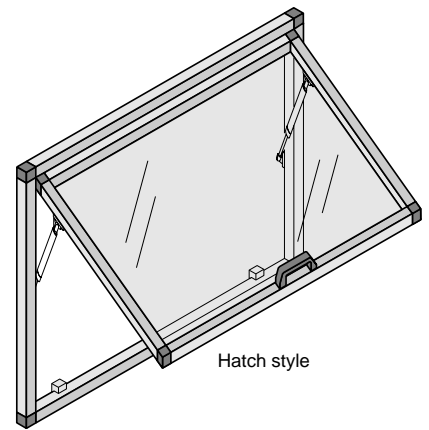
Hatch style
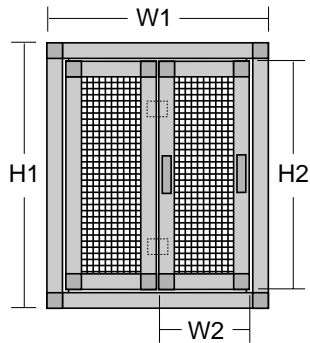
Single Bifold Door

Most commonly used when limited door swing space is available and maximum access is needed.

Frame around door H_1 x W_1

Series $\boxed{30}$

Vertical tube	FT-30T-10-
Horizontal tube	FT-30T-PT-10-
Corner joint	FT-30-PA-J2-GR
Tube length	H_1 or W_1 minus 2-3/8"

Bifold Door Panels $H_2 = H_1$ **minus 3-3/8"**
            $W_2 = (W_1$ **minus 2-5/8")÷2**

Series $\boxed{25}$

Tube	FT-25T-PF-10-
Corner joints (miterless)	FT-25-PA-J2M-GR (2)
....	FT-25-PA-JMLH-GR (1)
....	FT-25-PA-JMRH-GR (1)
Tube length	H_2 or W_2 minus 3"
Wire mesh or plastic panel dim.	H_2 or W_2 minus 2-3/16"
Glazing bead	FT-PF-GZ1- (for 3/16"-1/4" thick panel)
....	FT-PF-GZ2- (for 1/16"-1/8" thick panel or wire mesh)
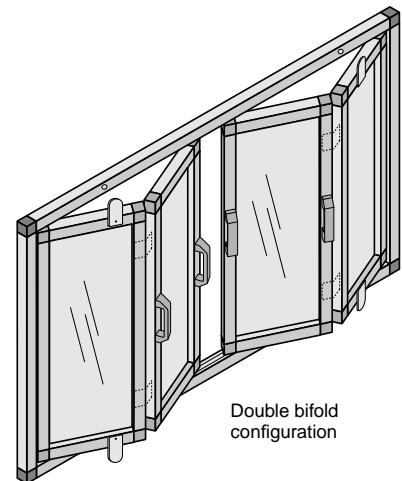
Double bifold configuration
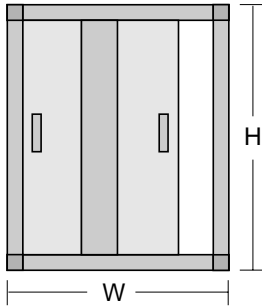
Sliding Panel Doors

Economical alternative when little or no door swing space is available.

	Series 25	Series 30
Vertical tube	FT-25T-10-	FT-30T-10-
Top horizontal tube	FT-25T-SPT-10-	FT-30T-SPT-10-
Bottom horizontal tube	FT-25T-SPB-10-	FT-30T-SP-10-
Corner joint	FT-25-PA-J2-GR	FT-30-PA-J2-GR
Tube length	H or W minus 2"	H or W minus 2-3/8"
Plastic panel dim	H minus 2-3/8"	H minus 3-1/8"
	((W minus 2") ÷ 2) + 1/2"	((W minus 2-3/8") ÷ 2) + 1/2"
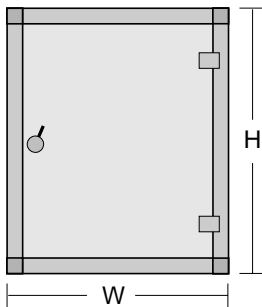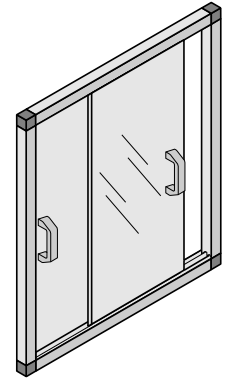
Unframed Panel Door with Door Seal Bead

Door is a piece of sheet plastic that is hinged to the frame. Latch secures door against flexible seal. Commonly used when enclosing dusty or wet environments.

	Series 25	Series 30
Tube	FT-25T-PS-10-	FT-30T-PS-10-
Corner joint	FT-25-PA-J2-GR	FT-30-PA-J2-GR
Tube length	H or W minus 2"	H or W minus 2-3/8"
Plastic panel dim.	H or W minus 2-1/2"	H or W minus 2-7/8"
Door seal bead	FT-PS-DS1-GR (for 1/4"-3/8" panels and Series 25 or 30 tubes)	
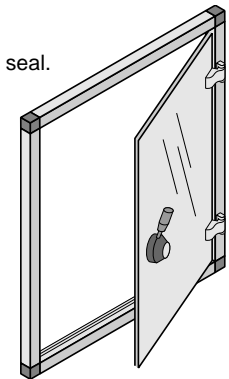
Gull Wing Door

Gull wing doors swing up and out of the way and are ideal for areas where aisle space is limited.
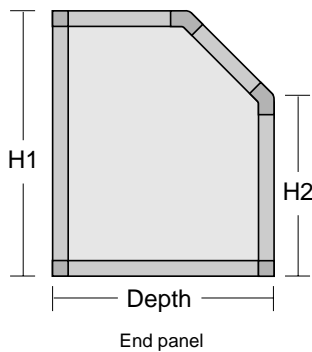
Frame around door

	Series 30
Vertical tube	FT-30T-PF-10-
Horizontal tubes	FT-30T-PF-10-, FT-30T- (bottom front)
Corner joints	FT-30-PA-J3S-GR (6)
	FT-30-PA-J2RS-45-GR (4)

Gull Wing Door Panel

	Series 25
Tube	FT-25T-PF-10-
Corner joints	FT-25-PA-J2RS-45-GR (4)
Corner joints (miterless)	FT-25-PA-J2M-GR (2)
	FT-25-PA-JMLH-GR (1)
	FT-25-PA-JMRH-GR (1)
45° side adapter	FT-25-ADP-R2-GR (4)
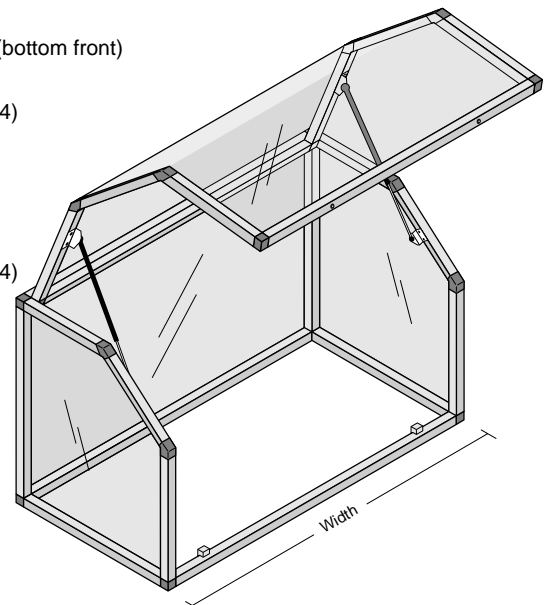
For panel and tube dimensions, please contact the Engineering Services Group with H1, H2, depth, and width.

End panel

FLEXTECH™

Tubing Profiles

- 80 mil wall thickness, internally ribbed for greater strength and stiffness
- Two sizes available for most tubes: Series **25** 1" square for panels and doors
- Available in 10 ft. lengths   Series **30** 1-3/16" square for framing structures
- 6063 T6 anodized aluminum in two finishes: Clear (**-AN)** and Elox tint (**-LX)** to match stainless steel

FlexTech Exclusive!

Square Aluminum Tube
FT-25T-10-AN
FT-25T-10-LX
FT-30T-10-AN
FT-30T-10-LX
Used for basic frame structure.

25 1.0 — 4 x R .1 — 1.0
30 1.19 — 4 x R .1 — 1.19
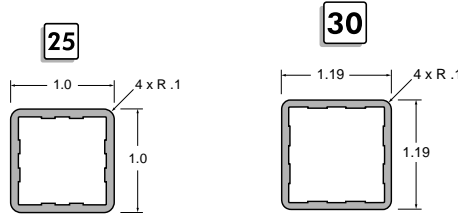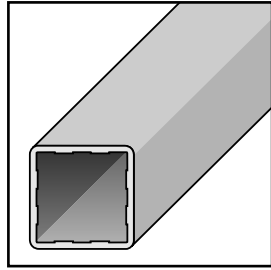
Panel Glazing Tube
FT-25T-PF-10-AN
FT-25T-PF-10-LX
FT-30T-PF-10-AN
FT-30T-PF-10-LX
Retains and seals panels from 1/16" to 3/8" thick. Requires FT-PF-GZ1- or FT-PF-GZ2 glazing bead.

25 .41 1.49 1.39 1.0 2 x R .1
30 .41 1.68 1.58 1.19 2 x R .1

Bead seals panel in frame

Panel seats against seal
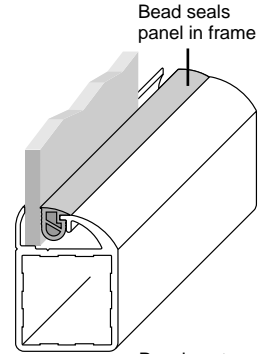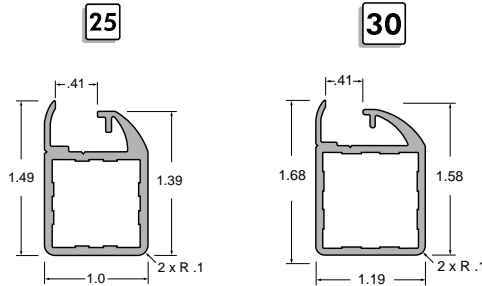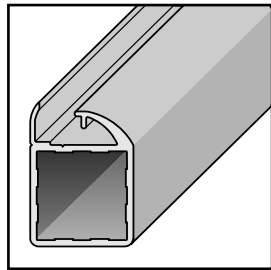
Panel Seal Tube
FT-25T-PS-10-AN
FT-25T-PS-10-LX
FT-30T-PS-10-AN
FT-30T-PS-10-LX
Used to make frameless sealed doors using panels from 1/4" to 3/8" thick. Requires FT-PS-DS1- door seal.

25 .63 1.13 1.42 1.0
30 .63 1.33 1.61 1.19 2 x R .1
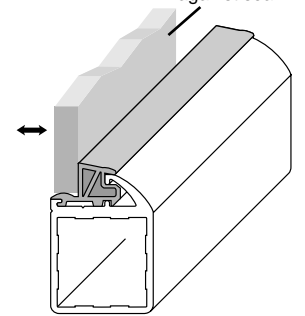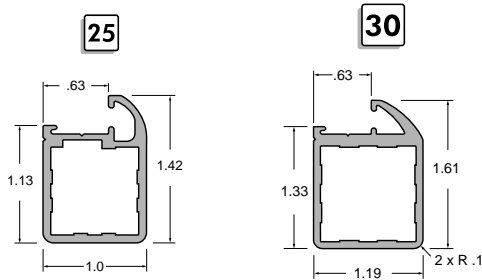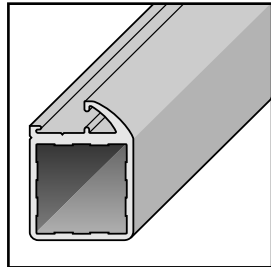
180° Panel Glazing Tube
FT-25T-PF-180-10-AN
FT-25T-PF-180-10-LX
FT-30T-PF-180-10-AN
FT-30T-PF-180-10-LX
Retains and seals two adjacent panels from 1/16" to 3/8" thick. Requires FT-PF-GZ1- or FT-PF-GZ2- glazing bead.

25 .41 1.98 1.78 1.0
30 .41 2.17 1.97 1.19
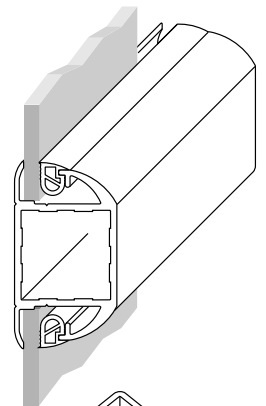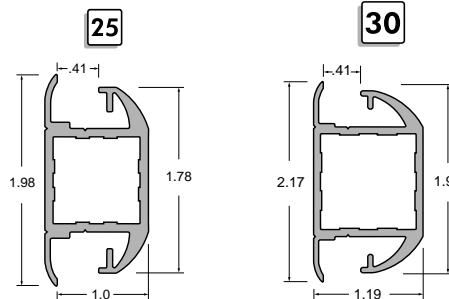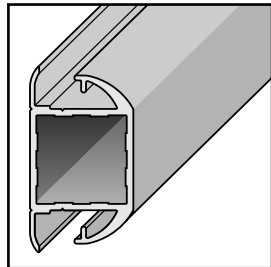
90° Panel Glazing Tube
FT-30T-PF-90-10-AN
Retains and seals two panels from 1/16" to 3/8" thick in a corner. Requires FT-PF-GZ1- or FT-PF-GZ2- glazing bead.

30 1.58 .41 R .1 1.68

8

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FlexTech
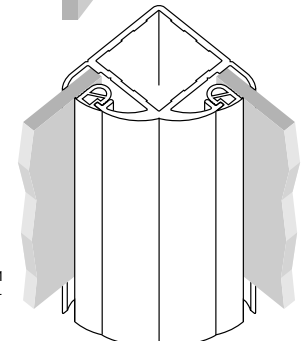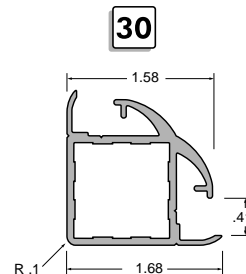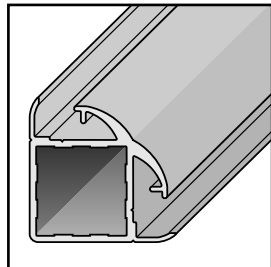
Bifold Track Tube
FT-30T-PT-10-AN
FT-30T-PT-10-LX
Used as upper and lower outside frame for bifold doors. Groove in tube retains the sliding pin (FT-PIN1-DL) attached to the bifold doors.

30

.34
1.57
1.19
2 x R .1
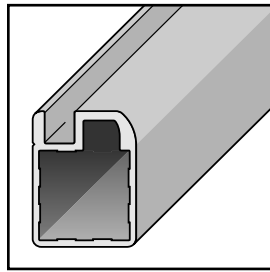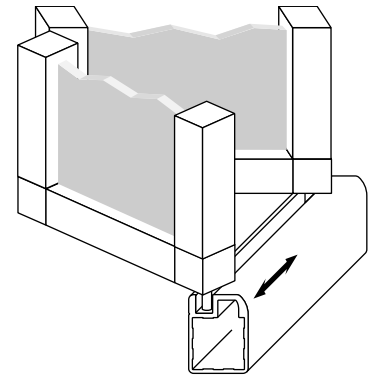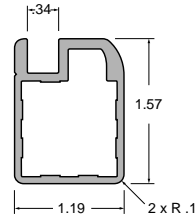
Bifold Track Adapter
FT-30C-PT-10-AN
FT-30C-PT-10-LX
Fastens to tubing. Used when the sliding track tube can't be used. See page 26 for mounting details.

30

R .1
.34
1.19
.38
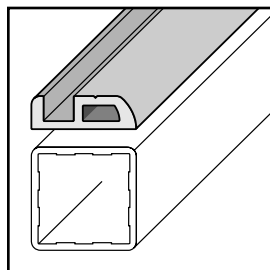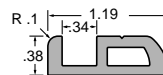
Panel Glazing Adapter
FT-25C-PF-10-AN
FT-25C-PF-10-LX
FT-30C-PF-10-AN
FT-30C-PF-10-LX
Fastens to tubing. Used to retain and seal panels when the panel glazing tube can't be used. See page 26 for mounting details.

25

.41
.49
.39
1.0

30

.41
.49
.39
1.19
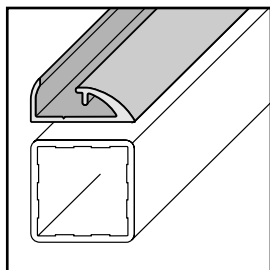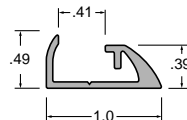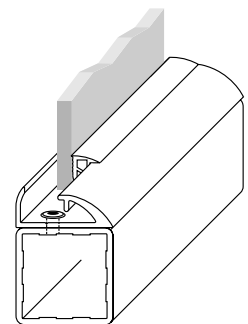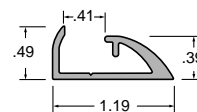
Panel Seal Adapter
FT-25C-PS-10-AN
FT-25C-PS-10-LX
FT-30C-PS-10-AN
FT-30C-PS-10-LX
Fastens to tubing. Used to make a frameless sealed door when the panel seal tube can't be used. See page 26 for mounting details.

25

.63
.14
.42
1.0

30

.63
.14
.42
1.19

Panel seats against seal

FLEXTECH™
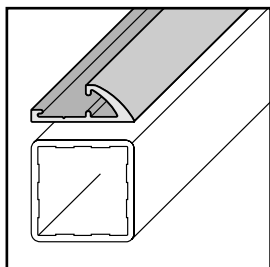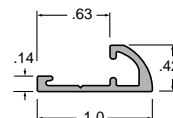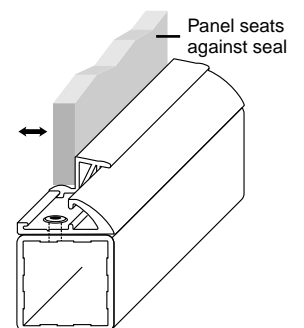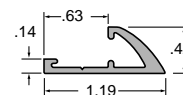
Framed Door Seal Tube
FT-30T-FDS-10-AN
FT-30T-FDS-10-LX
Used as a frame around a
Series 25 door. Door seats against
seal bead to keep dust, spray and
noise inside of enclosure.
See page 15 for seal bead.

Noise and Dust Abatement!

`30`

1.69
1.19

Series `25` tube
seats against seal
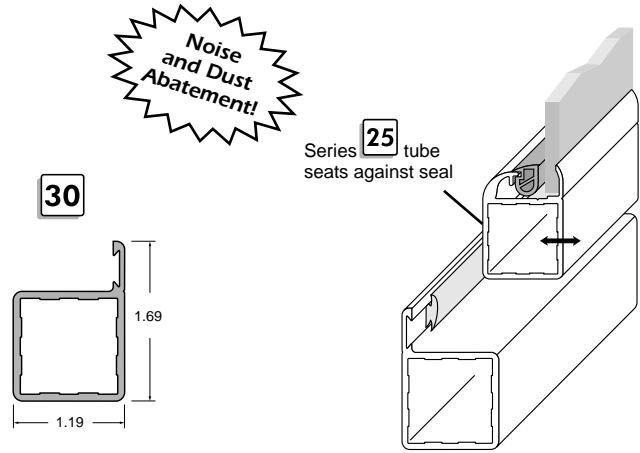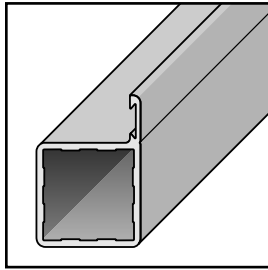
Panel Mounting Tube
FT-30T-PM-10-AN
FT-30T-PM-10-LX
Used to mount removable
panels up to 1/4" thick.

`30`

.33
.66
1.85
1.19

Easy Panel Replacement!

**Panel
Mounting Kit
FT-PMK**
#8 screw and black
nylon cup washer
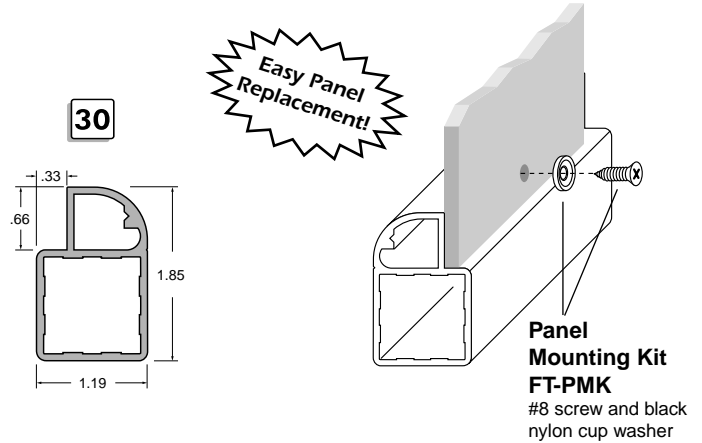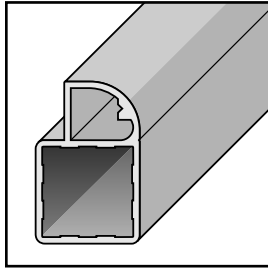
Sliding Panel Tube
FT-25T-SPT-10-AN (top)
FT-25T-SPT-10-LX (top)
FT-25T-SPB-10-AN (bottom)
FT-25T-SPB-10-LX (bottom)
Used to make sliding doors with
panels up to 1/4" thick. Deeper
top channels permit lift-out panel
removal.

`25`

1.0
1.06
1.56
.27

Top tube

`25`

.27
1.31
1.06
1.0

Bottom tube

Lift Out Sliding Door Panels!
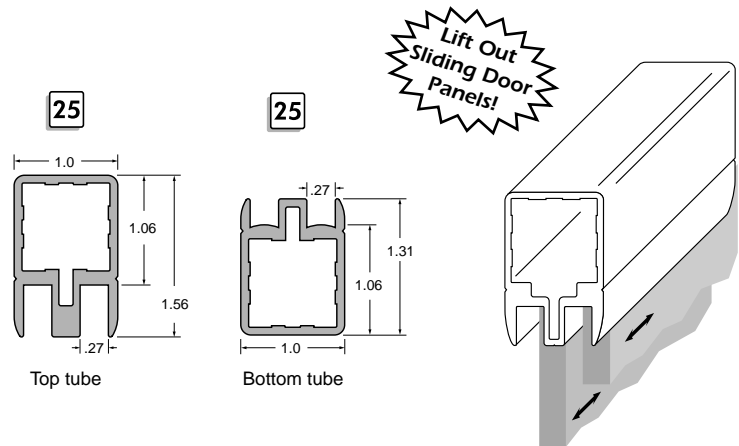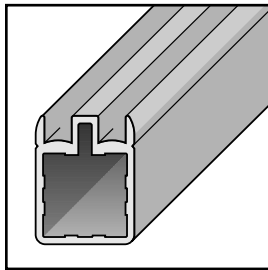
Corner Joints

- Glass reinforced polyamide construction tightly connects tube sections

- Gray color

- Two sizes available: For Series **25** tubing

    For Series **30** tubing
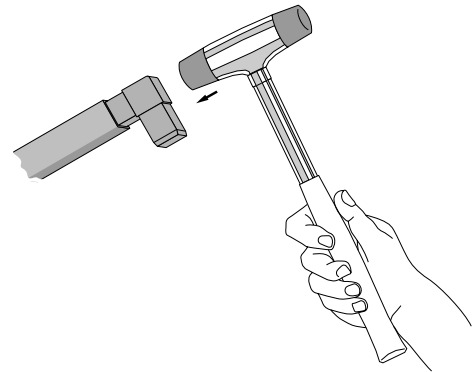
90° Corner Joint
FT-25-PA-J2-GR
Connects two Series 25 tubes at a corner.

1.77
1.0
.83
25
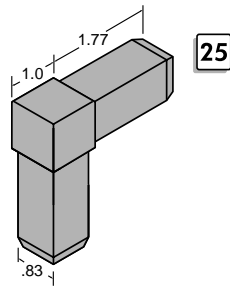
90° Corner Joint
FT-30-PA-J2-GR
Connects two Series 30 tubes at a corner.

1.38
1.19
1.02
30
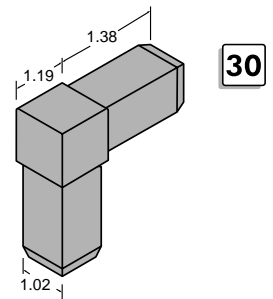
Tee Joint
FT-25-PA-JT3-GR
Connects three Series 25 tubes at a tee.

1.0
1.38
.83
25
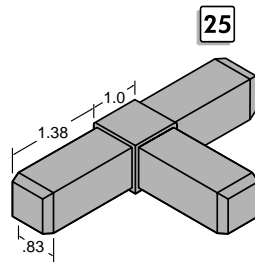
Tee Joint
FT-30-PA-JT3-GR
Connects three Series 30 tubes at a tee.

1.19
1.38
1.02
30
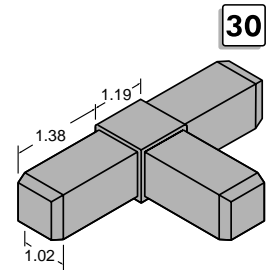
3 Way
Corner Joint
FT-25-PA-J3-GR
Connects three Series 25 tubes at a corner.

1.0
2.38
1.38
.83
25

FlexTech

FLEXTECH™
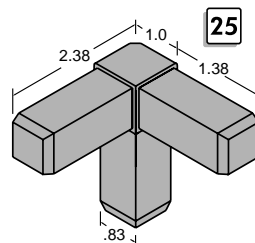
Steel Reinforced Corner Joints

- Glass reinforced nylon with steel inserts are up to 50% stronger than unreinforced joints

- Gray color

- Two sizes available: For Series **25** tubing
  For Series **30** tubing
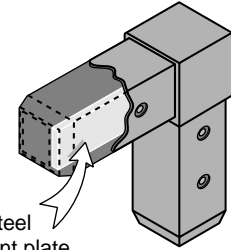
Molded-in steel reinforcement plate

**90° Corner Joint
FT-25-PA-J2S-GR**
Connects two Series 25 tubes at a corner.

1.77 / 1.0 / .83 — **25**
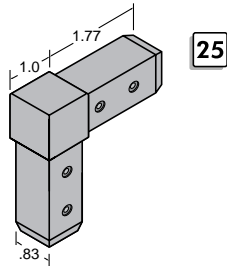
**90° Corner Joint
FT-30-PA-J2S-GR**
Connects two Series 30 tubes at a corner.

1.57 / 1.19 / 1.02 — **30**
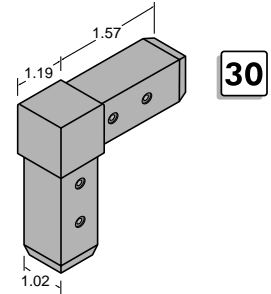
**45° Corner Joint
FT-25-PA-J2RS-45-GR**
Most commonly used with Series 25 tubes on gull wing doors. On smaller doors, eliminates the need to use a 45° brace.

1.0 / 1.38 / .83 / 45° — **25**
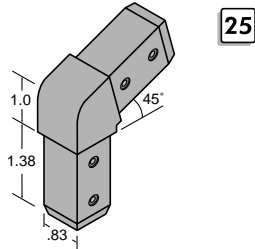
**45° Corner Joint
FT-30-PA-J2RS-45-GR**
Most commonly used with Series 30 tubes for frames around gull wing doors.

1.0 / 1.38 / 1.02 / 45° — **30**
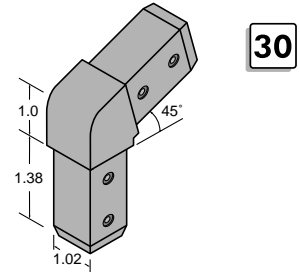
**90° Rounded Corner Joint
FT-25-PA-J2RS-GR**
Connects two Series 25 tubes at a corner.

1.38 / 1.0 / .83 — **25**
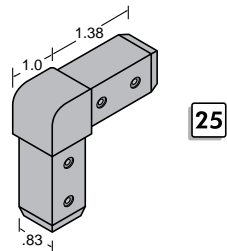
**90° Rounded Corner Joint
FT-30-PA-J2RS-GR**
Connects two Series 30 tubes at a corner.

1.57 / 1.19 / 1.02 — **30**
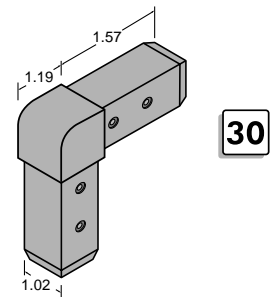
**3 Way Corner Joint
FT-30-PA-J3S-GR**
Connects three Series 30 tubes at a corner.

1.19 / 3.35 / 2.17 / 1.02 — **30**

FLEXTECH™
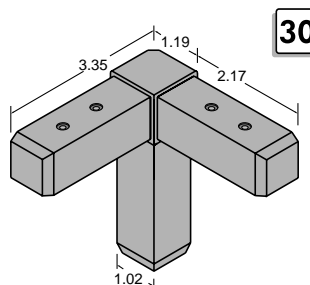
Special Corner Joints

Save Time & Labor!

Miterless Corner Joint
FT-25-PA-J2M-GR

The built-in miter is a time saving feature which eliminates the need to make miter cuts on the tube. Used with Series 25 Panel Glazing Tube only.

2.87 1.38 1.49 .83 `25`
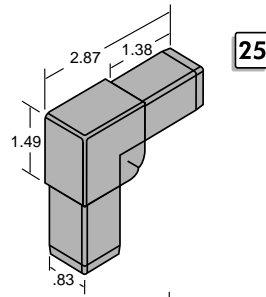
Rounded Miterless Corner Joint
FT-25-PA-J2MR-GR

2.87 1.38 1.49 .83 `25`

Easy to Assemble

Flush cut

Miter cut molded into joint
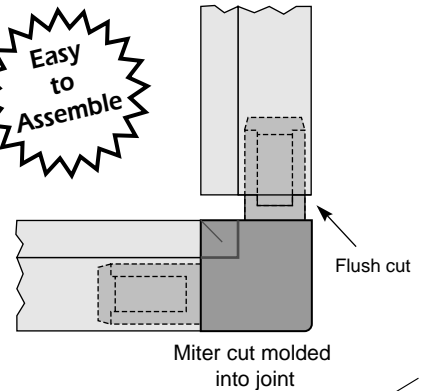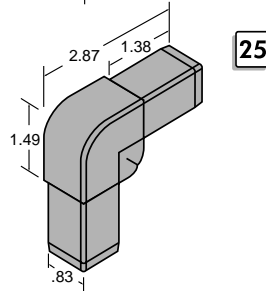
Internal Hinge Corner Joints

Sockets built into the corner joint accept steel hinge pins. Right or left hand versions are defined by the offset location of the socket on the corner joint. The socket location is offset 3/16" so that the Series 25 framed door will be flush with the outside of the Series 30 frame. See page 21 for hinge details.
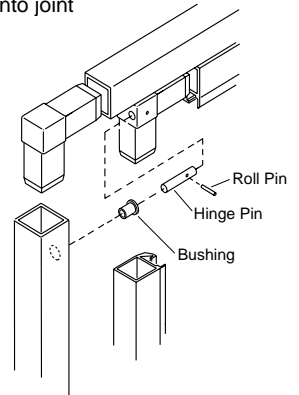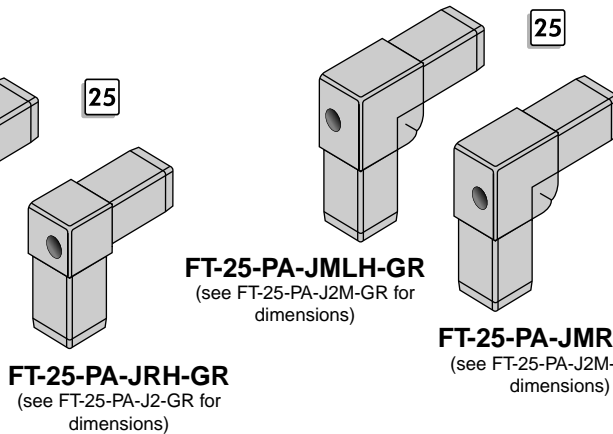
Roll Pin
Hinge Pin
Bushing

`25`
FT-25-PA-JLH-GR
(see FT-25-PA-J2-GR for dimensions)

FT-25-PA-JRH-GR
(see FT-25-PA-J2-GR for dimensions)

`25`
FT-25-PA-JMLH-GR
(see FT-25-PA-J2M-GR for dimensions)

FT-25-PA-JMRH-GR
(see FT-25-PA-J2M-GR for dimensions)

Internal Connectors
FT-25-PA-PLG
FT-30-PA-PLG

Connects two tubes at 90° without using a 90° Corner Joint. Used to make 4, 5, and 6 way connections. Available in gray polyamide.

`25` 1.38 .71 .83

`30` 1.38 .82 1.02

4 way connection shown

Pin/rivet to secure
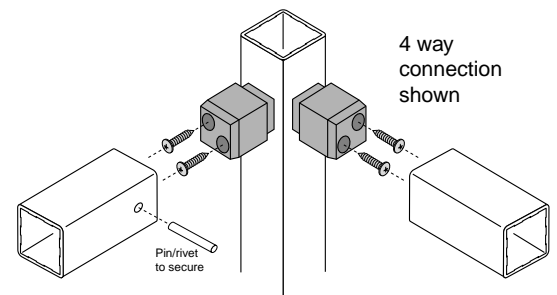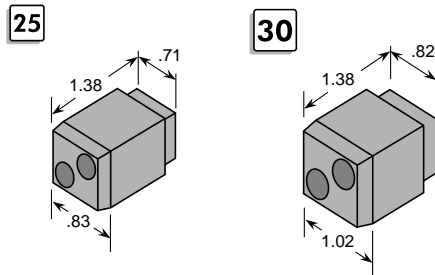
Miterless Tee Connectors
FT-25-PA-MT
FT-30-PA-MT

Connects two panel glazing tubes at 90° without requiring a miter cut. See page 26 for hardware mounting details. Available in gray polyamide.

`25` .83 .32

`30` 1.02 .32

FlexTech

FLEXTECH
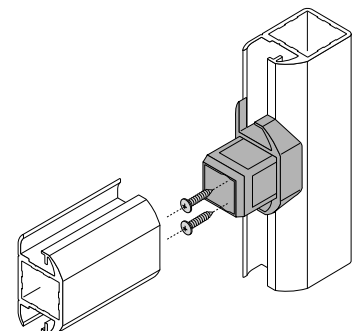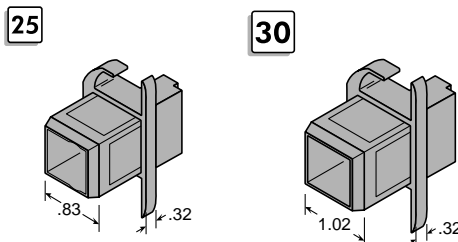
Adapters

■ Gray color

Internal Corner Adapter
FT-25-ADP-01-GR
FT-30-ADP-01-GR
Reinforced polyamide adapters are used to capture 1/4" or thinner panels when Panel Glazing Tubing is used to create an internal corner. Fasteners included.
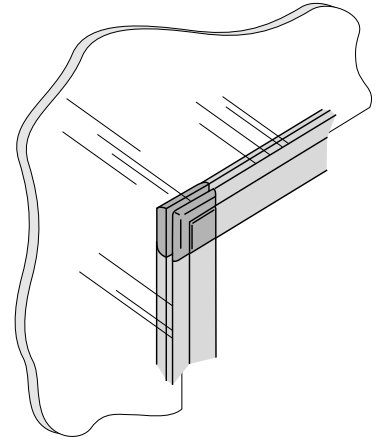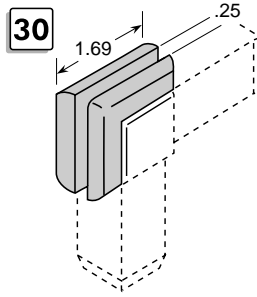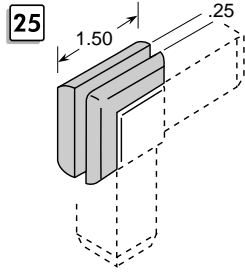
90° Side Adapter
FT-25-ADP-R1-GR
Reinforced polyamide adapters are used to capture 90° curved panels. Used with Series 25 Panel Glazing Tube, 90° Rounded Corner Joint, and 1/4" or thinner panel. Fasteners included.
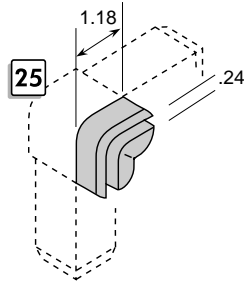
45° Side Adapter
FT-25-ADP-R2-GR
Reinforced polyamide adapters are used to capture 1/4" or thinner plastic panels on framed gull wing doors. Used with Series 25 Panel Glazing Tube and 45° Rounded Corner Joint. Fasteners included.
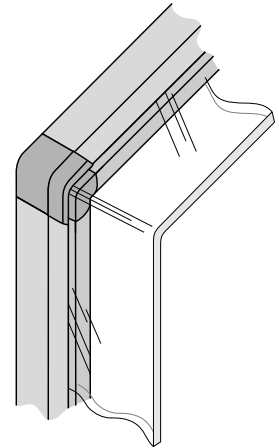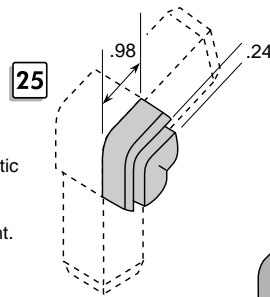
Panel Materials

FlexTech structures can be made with a wide variety of panel materials. The material typically used is clear or tinted plastic panels. Panel thickness, depending on the tubes and accessories used, can vary from 1/16" to 3/8". Clear plastic panels are available with kits or complete enclosures ordered from our Engineering Services Group.
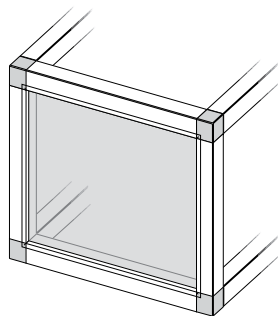
FlexTech with plastic panel.
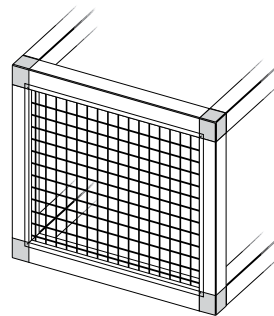
FlexTech with wire mesh panel.

Wire Mesh Panels

PVC Coating

Steel Wire
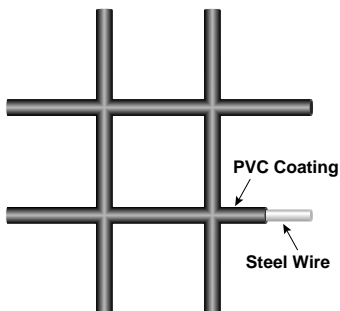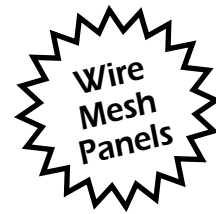
Wire Mesh Panels
FT-MESH-
PVC coated wire mesh is the preferred panel material for certain structures, and can be specified through our Engineering Services Group, or ordered separately. Wire mesh sizes are 1/2" x 1/2" or 1" x 1", and are available in black or safety yellow. Panel sizes are 4' x 8'.

48" x 96" Panels

Part Number	Mesh Size	Color
FT-MESH-4x8-05-YL	**½" x ½"**	**Safety Yellow**
FT-MESH-4x8-05-BK	**½" x ½"**	**Black**
FT-MESH-4x8-10-YL	**1" x 1"**	**Safety Yellow**
FT-MESH-4x8-10-BK	**1" x 1"**	**Black**

Panel Seals

Panel Glazing Bead
FT-PF-GZ1-10-GR
FT-PF-GZ1-30-GR
For 3/16" to 1/4" thick panels.

FT-PF-GZ2-10-GR
FT-PF-GZ2-30-GR
For 1/16" to 1/8" thick panels.

Retains and seals panels in Series 25 and 30 Panel Glazing Tubes or Panel Glazing Adapters.

.4
.43
FT-PF-GZ1-

.59
.47
FT-PF-GZ2-
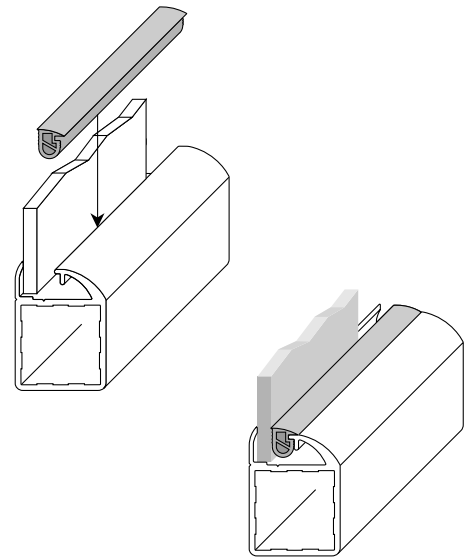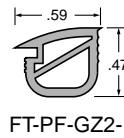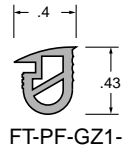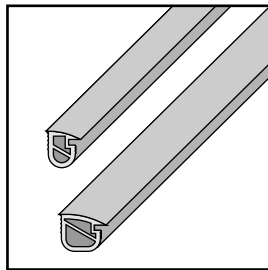
Panel Seal
FT-PS-DS1-10-GR
FT-PS-DS1-30-GR
Used on FT-25T-PS- or FT-30T-PS- Panel Seal Tube to make frameless sealed doors.

Panel seats against seal

.34
.45
.83
FT-PS-DS1-GR
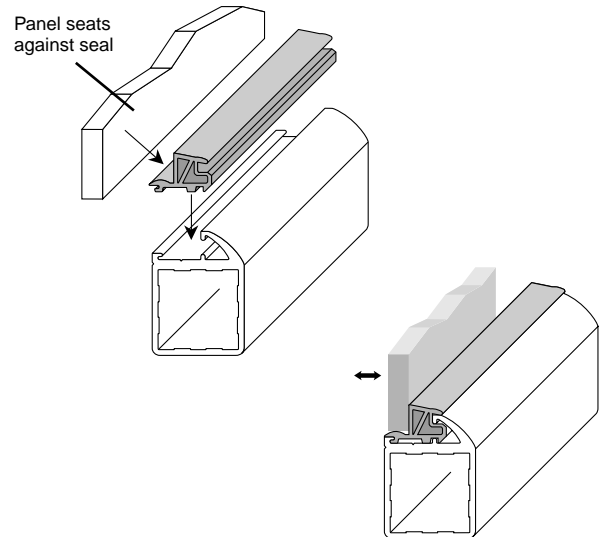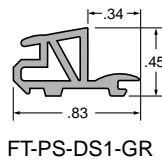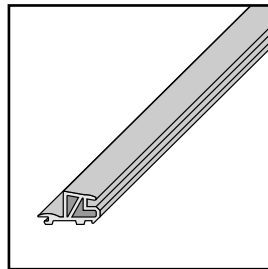
Seal Bead
FT-FDS-GZ-10-LX
FT-FDS-GZ-30-LX
Used on FT-30T-FDS-10- tube to seal framed door against flange.

.30 .38
.17
FT-FDS-GZ-LX

FLEXTECH™
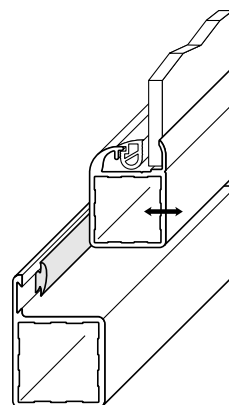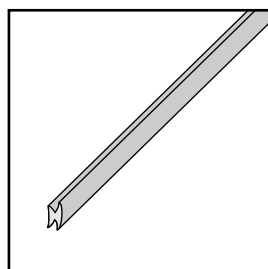
Panel Mounting

Mounting Block Kit
FT-PMB-01-CLR
FT-PMB-01-GR

Made from clear polycarbonate or glass reinforced gray polyamide, mounting blocks are used where easy panel removal is needed and an air tight seal is not a concern. Designed to be placed around the inside of the panel frame, mounting blocks can be used to support both vertical and horizontal panels, such as side panels and enclosure tops.
Hardware included.
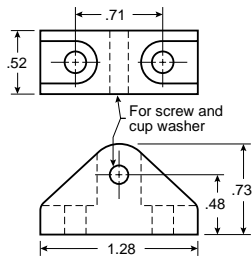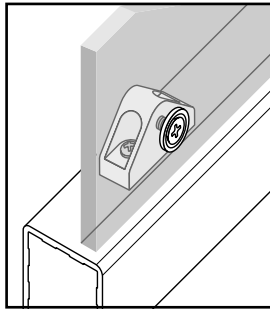
For additional panel mounting options, see pg. 42.

.71
.52
For screw and cup washer
.73
.48
1.28
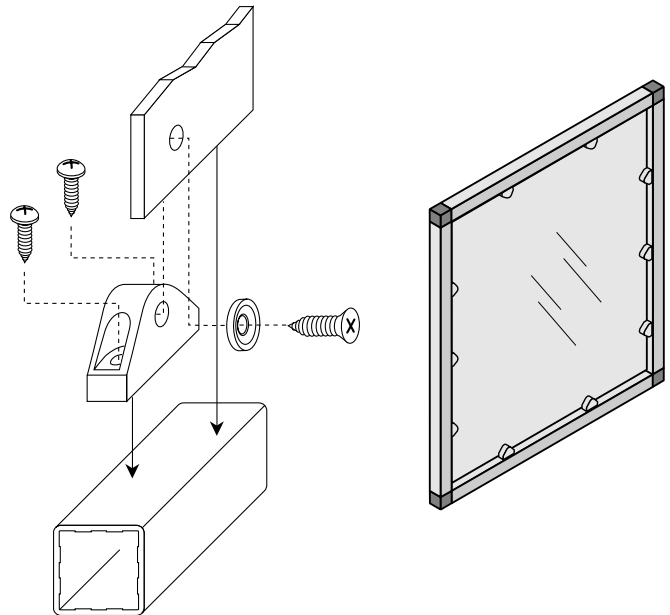
One Sided Pop-In
Panel Clamp
FT-PMC1-GR

Nylon pop-in panel clamps are easy to install and permit removal of the panel. Hardware included.
Panel thickness range: 3/16" to 3/8".

.88
.25
.50
.96
Ø.31
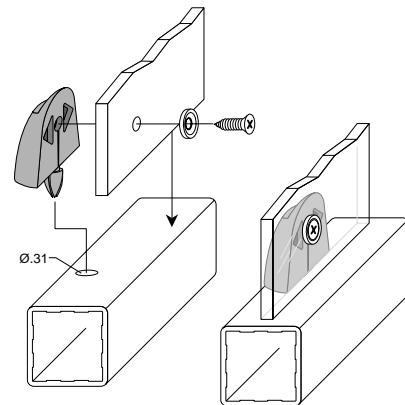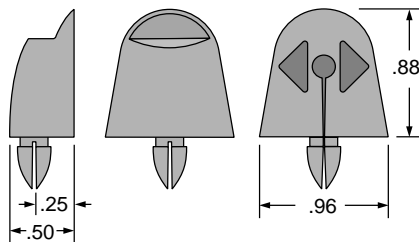
Two Sided Pop-In
Panel Clamp
FT-PMC2-GR

Nylon pop-in panel clamps are easy to install and do not require holes to be drilled into the panel. Can be used to retain plastic and wire mesh panels. Hardware included.
Panel thickness range: 3/16" to 3/8".

.16
1.0
.36
1.0
.30
Ø.31

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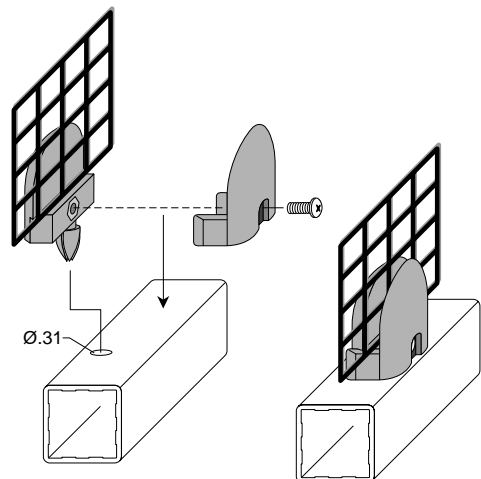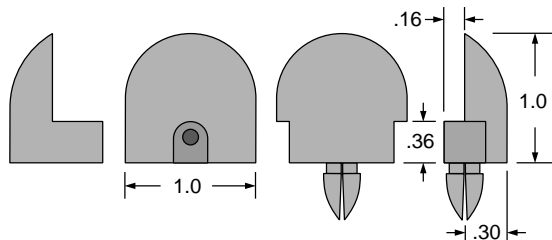
Handles

15° Offset Thru Handle
FT-HDL-1-GR (Gray)
Made of high strength gray polyamide.
Ergonomic 15° offset.
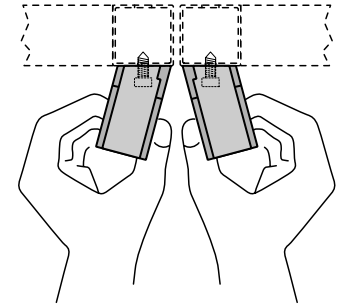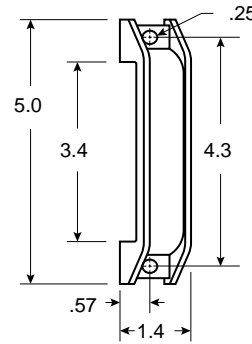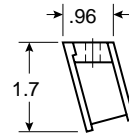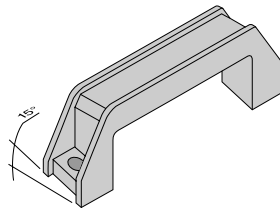
15° Offset Closed Handle
FT-HDL-1C-GR (Gray)
Made of high strength gray polyamide.
The 15° offset and closed design
allows easy opening without pinched
fingers and scraped knuckles when
handles are mounted side by side on
adjacent doors.

Prevents Pinched Fingers
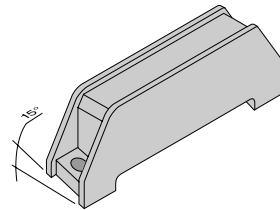
Handle Cover
FT-HDL-1-CAP-OR (Safety Orange)
FT-HDL-1-CAP-BK (Black)
Handle cover fits both thru and closed offset
handles to aid in visibility and safety.

FlexTech

FLEXTECH™
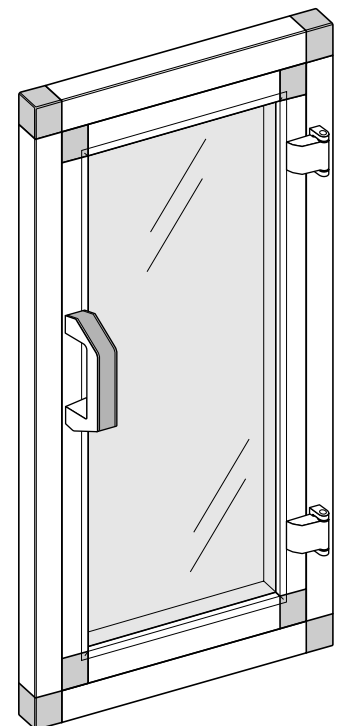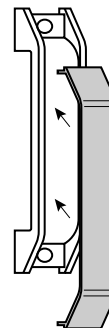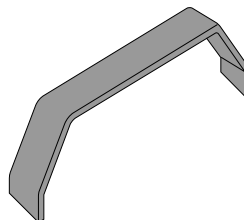
Door Closures

■ See page 26 for mounting details

Magnet

Doorstop is shown on page 24
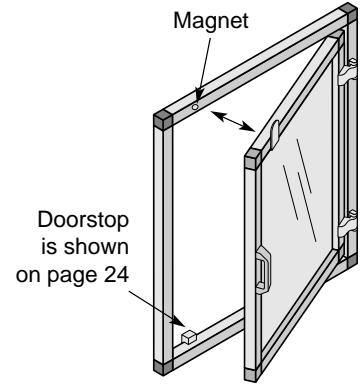
Door Magnet Kit (outside mount)
FT-MAG-21-GR

Keeps framed doors closed. Magnet is mounted into Series 30 frame and reinforced polyamide catch is mounted on outside of Series 25 framed panel door. Hardware included.

30 **25** .12 2.12 .49 1.1
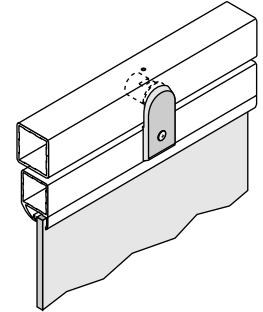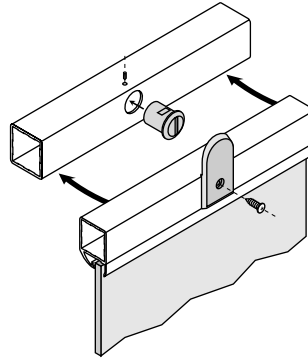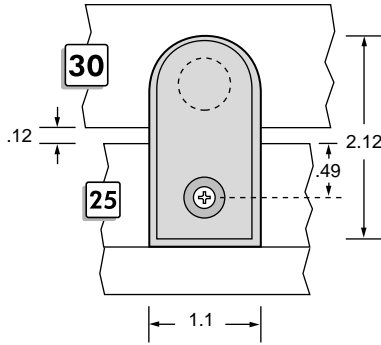
Door Magnet Kit (inside mount)
FT-MAG-22-GR

Keeps framed doors closed. Magnet and reinforced polyamide support are mounted on inside of Series 30 frame and metal catch is mounted on inside of Series 25 framed panel door. Hardware included.

25 **30** .12 2.3 .69 .67 1.26
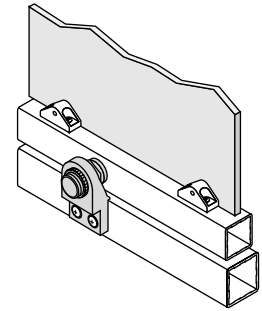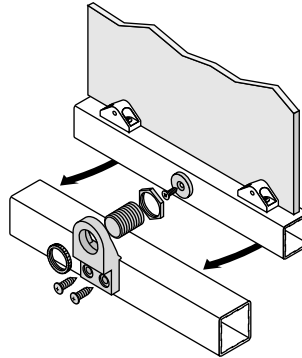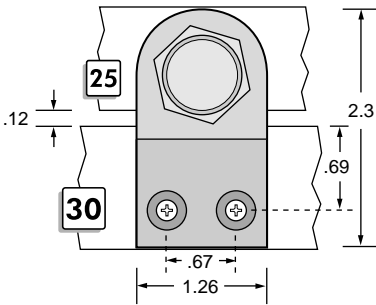
Door Magnet Kit (bifold door outside mount)
FT-MAG-31-GR

Keeps framed doors closed. Magnet is mounted on Series 30 Bifold Track Tube and reinforced polyamide catch is mounted on outside of Series 25 framed panel door. Hardware included.

30 **25** .12 2.5 .49 1.1
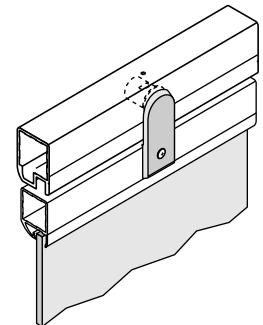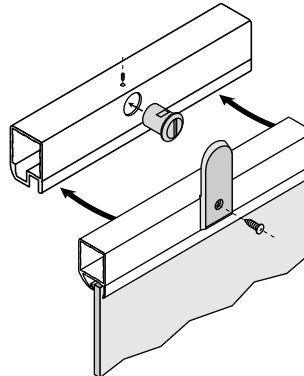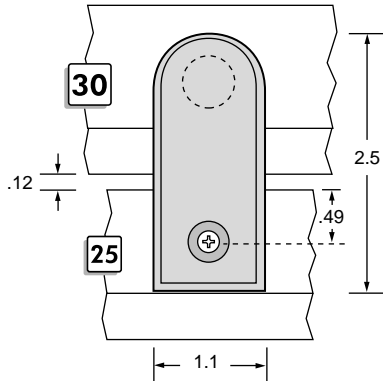
Door Magnet Kit (inside mount)
FT-MAG-32

Keeps framed doors closed when doors are mounted directly onto machine frame. Magnet and stainless steel support are mounted on inside of machine frame and catch is mounted on inside of framed panel door. Hardware included.

25 .12 1.19 1.19

Machine frame
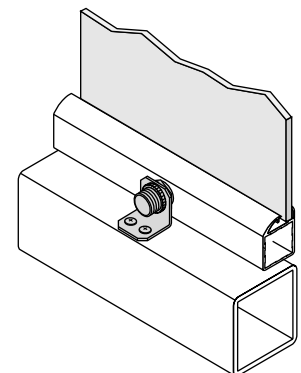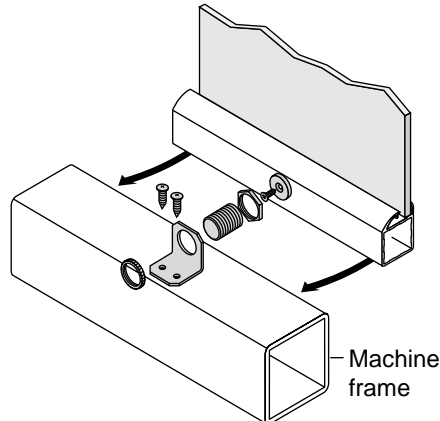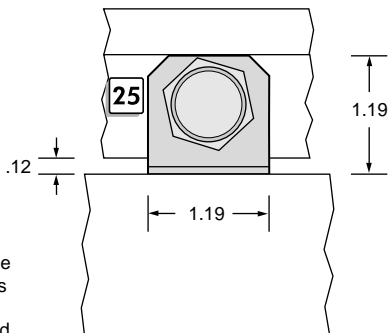
Framed Door Compression Latch
FT-FDLAT-02

Used with a Series 25 framed door and Series 30 outside frame. With a half turn of the handle, the door is latched tightly to the frame. Black powder coated metal handle. Requires two doorstops, FT-HDS-01-, page 24. All hardware is included. See page 26 for mounting details.

① ② ③
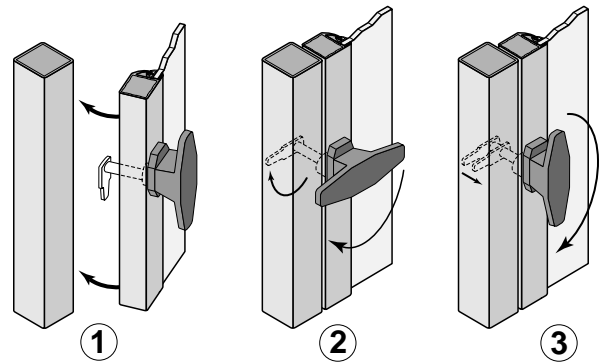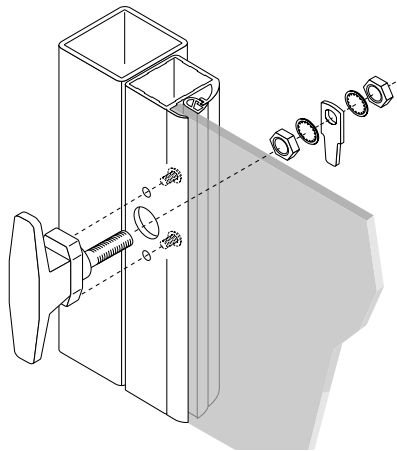
Framed Door Latch
FT-FDLAT-01

Nylon latch is used with a Series 25 framed door and Series 30 outside frame to provide a secure, flush closure. For use on standard, sealed frame and bifold doors.
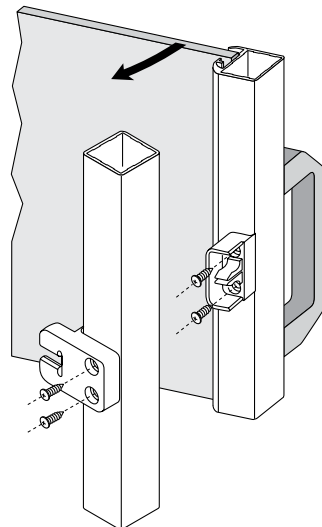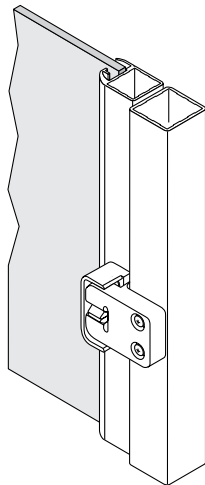
Panel Door Latch
FT-LAT-01

Plastic and anodized aluminum latch for unframed doors. Ergonomic latch is mounted into door panel. Handle rotates through 360° with click stops every 90°. Latch pawl engages panel seal tube.
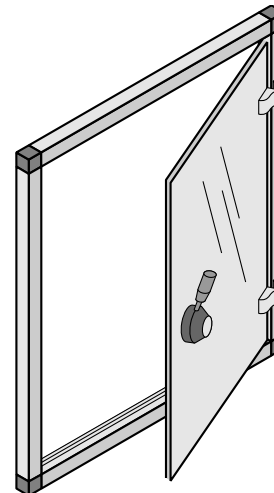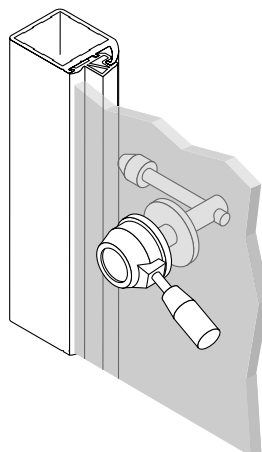
FLEXTECH™
Hinges

■ Anodized aluminum in two finishes: Clear and Elox tint to match stainless steel

See page 26 for mounting details.
See page 29 for mounting hardware.
Sheet metal screws shown.
See page 24 for rivet nuts.

Frame Hinge Mounting Kit
FT-HNG-21-AL-AN
Heavy duty aluminum hinge used to attach a framed panel door to a frame. Special shoulder bolt and lock washer included.

.55

2.2 1.0

Ø.22 thru

.28 1.63

.63

Shoulder bolt and lock washer
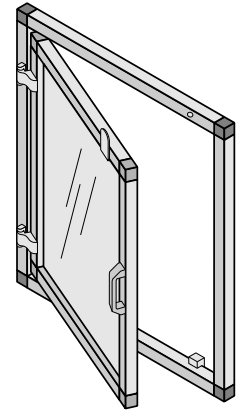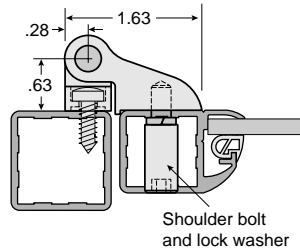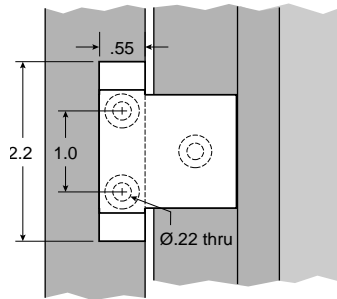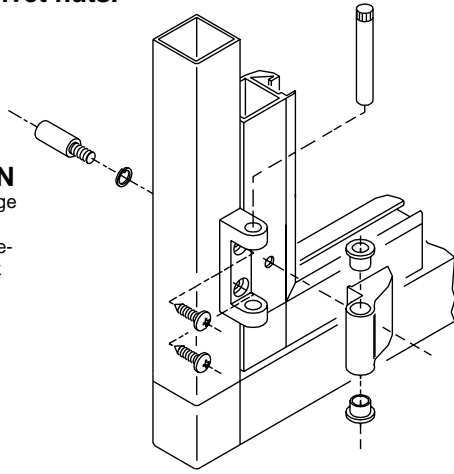
Flush Hinge
FT-HNG-01-AL-AN
FT-HNG-01-AL-LX
Medium duty aluminum hinge used to connect bifold doors together or attach a framed panel door to a frame.

Ø .22 thru

2.0

1.20

1.19

2.0

.26 .24 .50
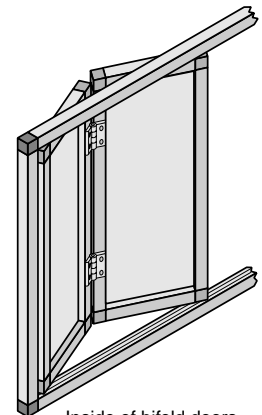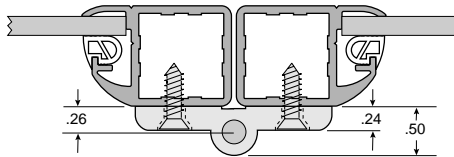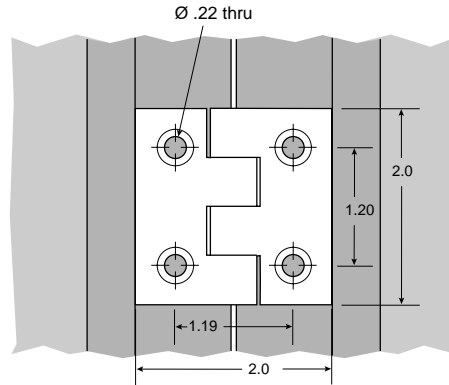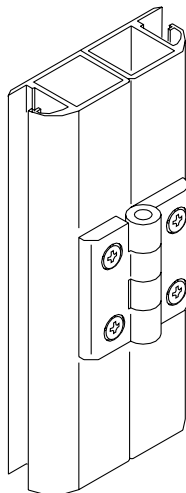
Inside of bifold doors showing flush hinges.
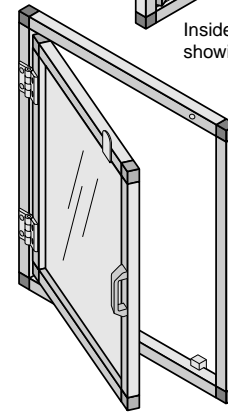
Panel Door Hinge Kit
FT-HNG-22-AL-AN
FT-HNG-22-AL-LX
Heavy duty aluminum hinge used to attach an unframed door to a frame. Screw and plastic cup washer included.

.55

2.2 1.0

Ø.22 thru

.28 2.4

.63

screw and cup washer
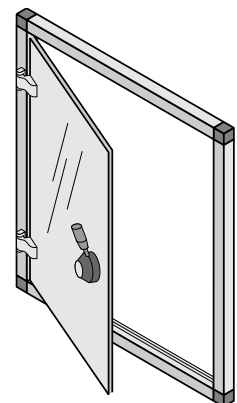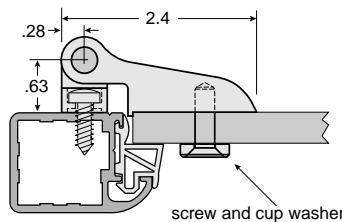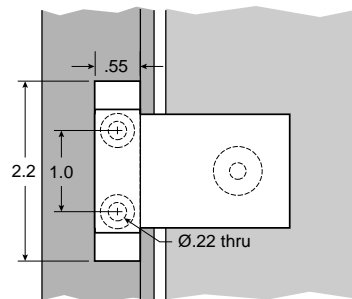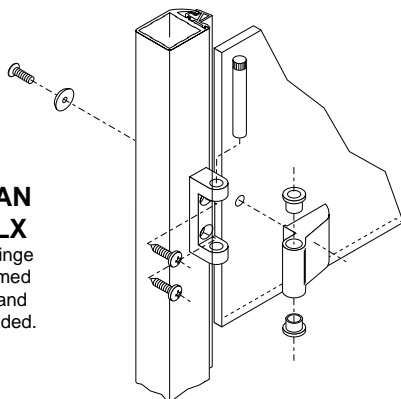
Stainless Steel Continuous Hinge
FT-HNG-02-SS
Made of 304 stainless steel. Available in 8 ft. lengths.

1.5

.31

Closed

1.5

Open
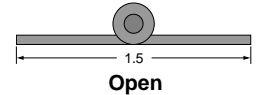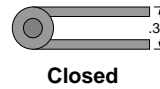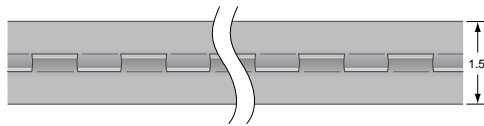
Internal Hinge Pin Kit
FT-PIN2
Steel pin is used with Internal Hinge Corner Joint to attach a framed panel door to a frame. Hinge pin, plastic bushing, and roll pin are included.

The hole in the Internal Hinge Corner Joint is positioned toward the outside of the structure. Since the socket location is offset, the Series 25 door panels will be flush with the Series 30 frame.

Note: Cannot be used with Framed Door Seal Tube (FT-30T-FDS-10-).

Roll Pin

Hinge Pin

Bushing
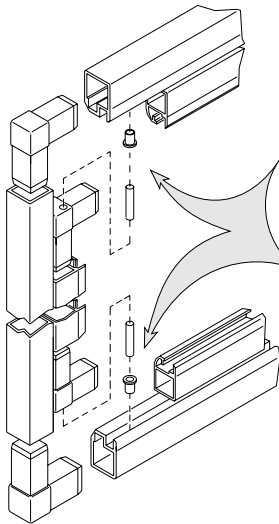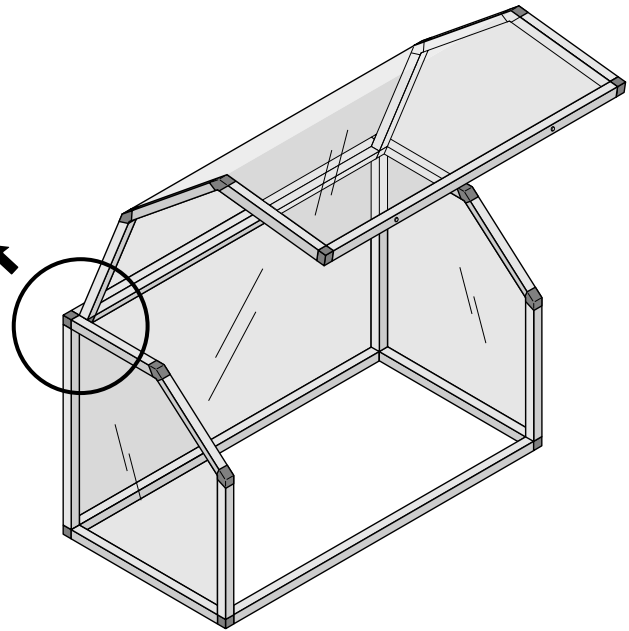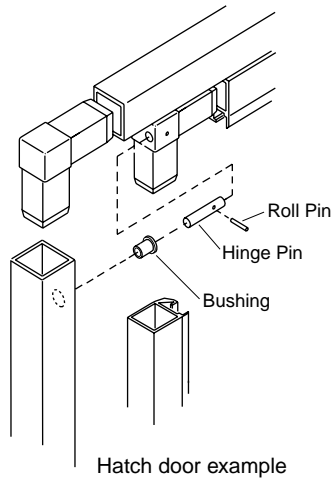
Hatch door example

Bifold door example
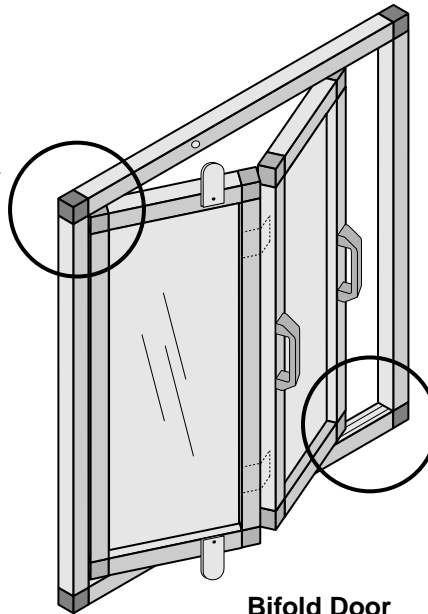
Bifold Door Slide Pin
FT-PIN1-DL
Acetal pin is used on the top and bottom sliding end of bifold doors. The pin slides in the track of the Sliding Track Tube and requires Internal Hinge Corner Joints (see page 13).

FLEXTECH™
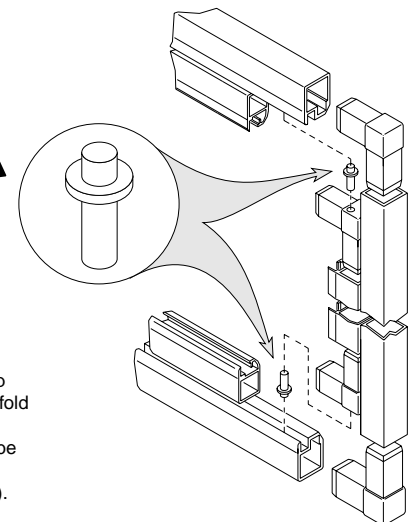
Gas Springs

FT-GS-

Gas springs are used on gull wing and hatch doors to assist in opening doors and keeping them in their open positions. Most doors require two gas springs so that the load on the springs and the door frame is balanced.

The ends of the springs have sockets which fit over a ball on the mounting brackets. This attachment allows some flexibility in mounting locations such that the brackets do not have to be directly in line with each other. Two mounting bracket types are available. Gas springs are always mounted rod end down.

Available stock sizes should work for most applications, but other sizes and spring forces are available. Please call our Engineering Services Group for assistance in sizing and locating gas springs.

FT-GS-1220
Extended:	12 in.
Compressed:	8.5 in.
Stroke:	3.5 in.
Spring Force:	20 lbs.

FT-GS-1240
Extended:	12 in.
Compressed:	8.5 in.
Stroke:	3.5 in.
Spring Force:	40 lbs.

FT-GS-2020
Extended:	20 in.
Compressed:	12 in.
Stroke:	8 in.
Spring Force:	20 lbs.

FT-GS-2040
Extended:	20 in.
Compressed:	12 in.
Stroke:	8 in.
Spring Force:	40 lbs.

FT-GS-2080
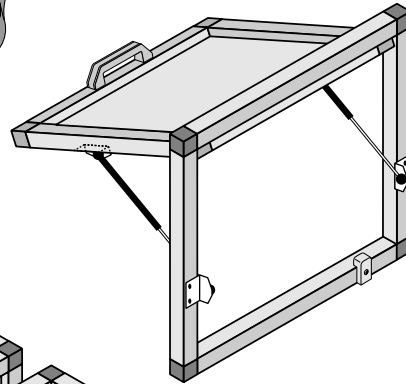|	
Extended:	20 in.
Compressed:	12 in.
Stroke:	8 in.
Spring Force:	80 lbs.
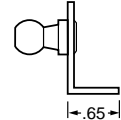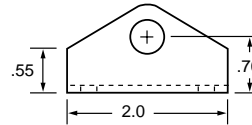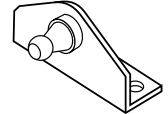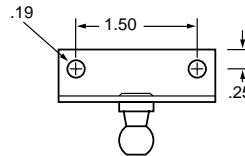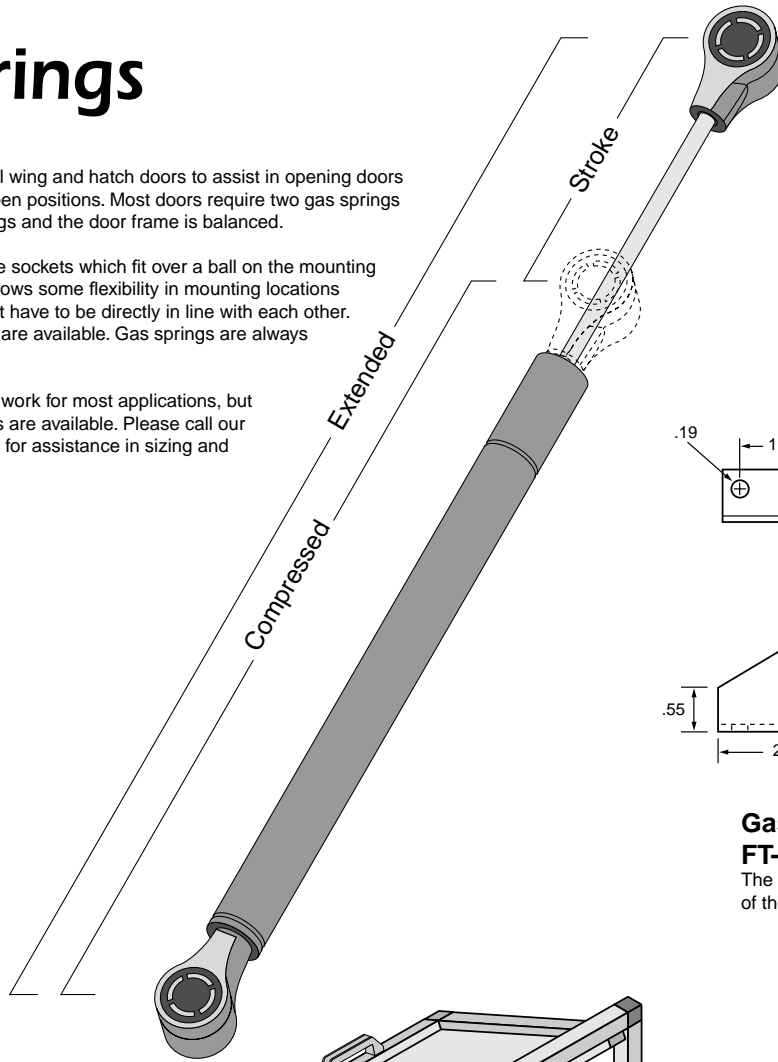
Gas Spring Mounting Bracket
FT-GSMB-1
The right angle bracket is mounted on the back side of the tube.
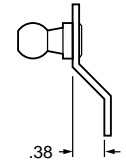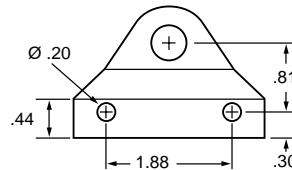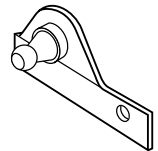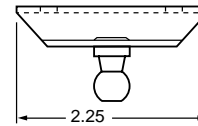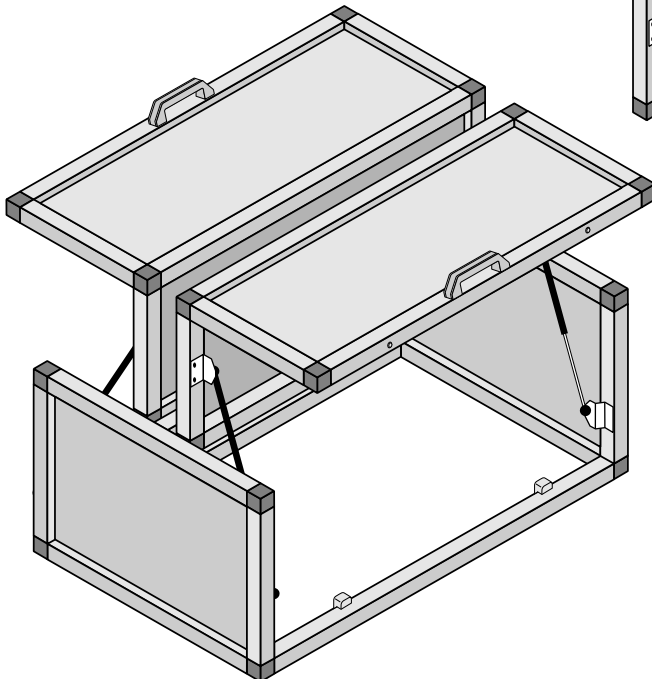
Flush Mount
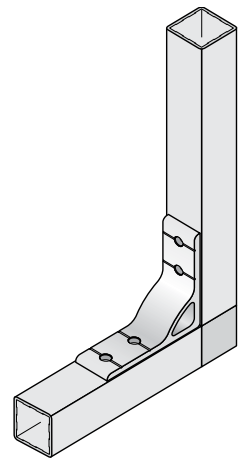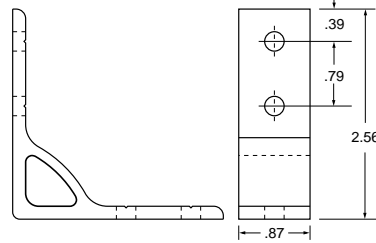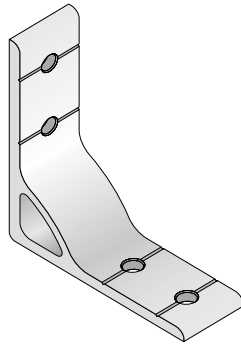## Gas Spring Mounting Bracket
FT-GSMB-6
The flush mount bracket is mounted on the side of the tube. Most commonly used with gull wing doors. Requires 1/4" spacing between door and frame.
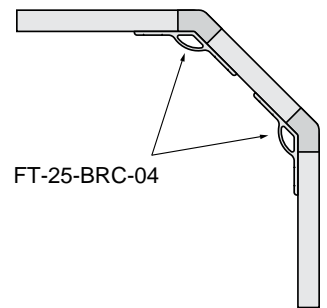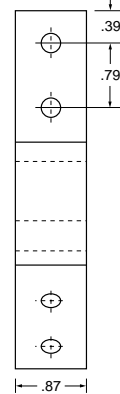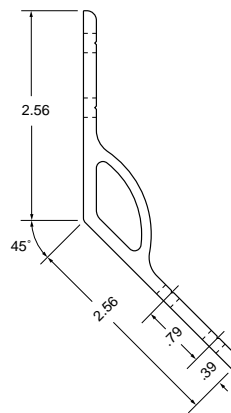
Braces

FlexTech

FT-25-BRC-03
90° Angle Brace
Aluminum support brace is used to support 90° corners. Mounting screws included.

NEW

.39
.79
2.56
.87

FT-25-BRC-04
45° Angle Brace
Aluminum support brace is used to support 45° corners commonly used on gull wing doors. Mounting screws included.
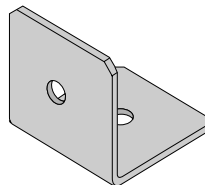
NEW

.39
.79
2.56
2.56
.79
.39
45°
.87
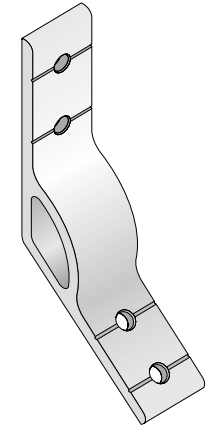
FT-25-BRC-04

Angle Brackets
FT-30-SUP-01
FT-30-SUP-02
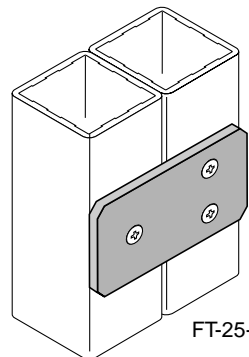Stainless steel angle brackets are used as added corner support or to attach tubing or frames to other equipment. Hardware not included.
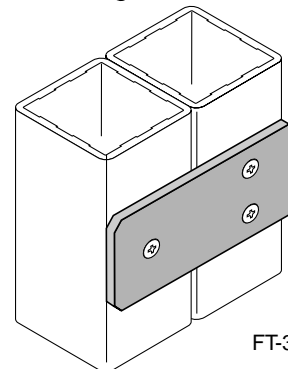
1.19
.59
.49
.215
(14 ga.)
1.19

.275
.59
.58
1.19

1.19
.59
.38
.215
(11 ga.)
1.19

.275
.59
.79
1.95
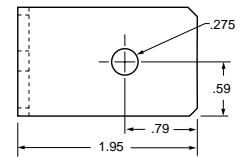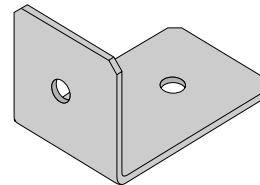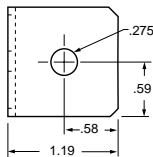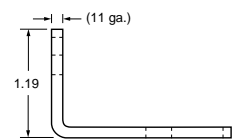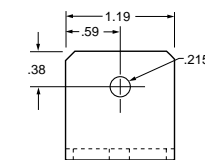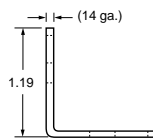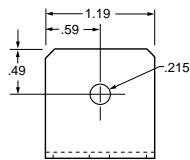
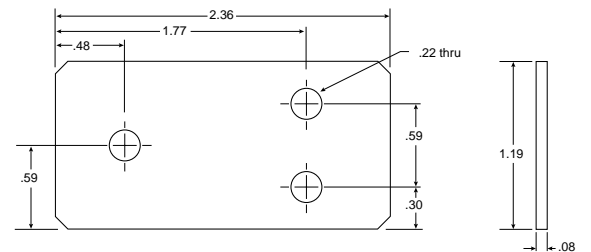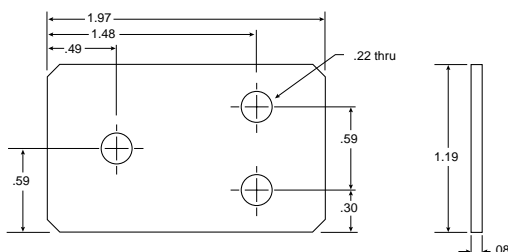### Joining Plate
FT-25-PLT
FT-30-PLT
Stainless steel joining plates are used to connect adjoining tubes together. Hardware not included.
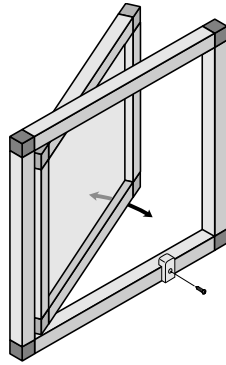
FT-25-PLT

FT-30-PLT

1.97
1.48
.49
.22 thru
.59
.59
1.19
.59
.30
.08

2.36
1.77
.48
.22 thru
.59
.59
1.19
.59
.30
.08

FLEXTECH™

FlexTech Accessories

Threaded Tube Ends
FT-END-01-BK (M16 thread)
FT-END-02-BK (5/8-11 thread)
Black reinforced polyamide tube ends insert tightly into Series 30 tubes and accept M16 or 5/8-11 threaded adjustable levelers.
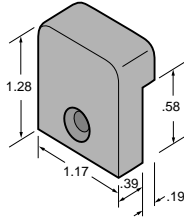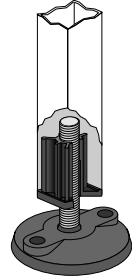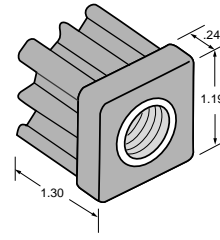
Door Stop
FT-HDS-01-GR (Gray)
Reinforced polyamide door stop is typically mounted on the bottom of the Series 30 frame. Mounting screw included.
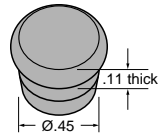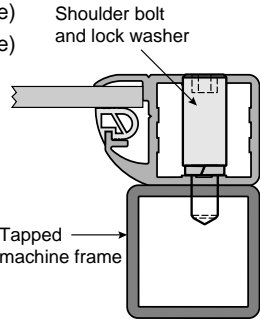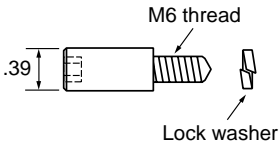
1.28   .58
1.17   .39   .19

.24
1.19
1.30

Shoulder Bolts
FT-FAST-01 (for Series 25 tube)
FT-FAST-02 (for Series 30 tube)
Plated steel bolts are used to mount Series 25 and Series 30 tubes to other tubes or frames. Lock washer included.

Shoulder bolt and lock washer

M6 thread
.39

Lock washer

Tapped machine frame

Bumper Cap
FT-PCP-GR
Gray plastic caps are used on the bottom of gull wing doors to protect the frame from marring.

.11 thick
Ø.45

.20 thick
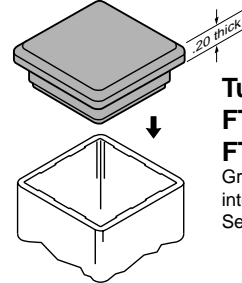
Tube Caps
FT-25-CAP-GR
FT-30-CAP-GR
Gray plastic caps fit tightly into the ends of Series 25 or Series 30 tubes.

Valu Guard Assembly Accessories

Rivet Nuts
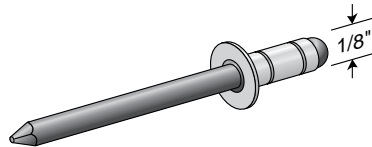**11044** (10-32 thread for handles and accessories)
11045 (M6 thread for FT-FAST- shoulder bolts)
Plated steel, threaded fastener is inserted from the front side of a tube. Provides a more secure fastening method than sheet metal screws.
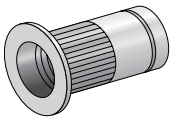
Pop Rivets
14037
Used to secure joints and adapters to tubes. Aluminum with steel mandrel.

1/8"

Panel Cleaning Solution
VG-1004
Keep your panels clean and static free. Recommended for cleaning and polishing plastic panels. Will not cause crazing, cracking or scratches that can result from the use of glass cleaners or all-purpose cleaners.
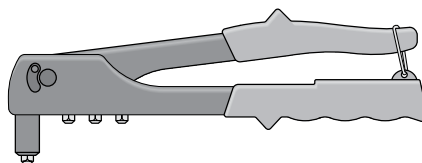
Rivet Nut Installation Tool
VG-1001
Used to install rivet nuts. Includes mandrels for installing 8-32, 10-24 and 10-32 rivet nuts.
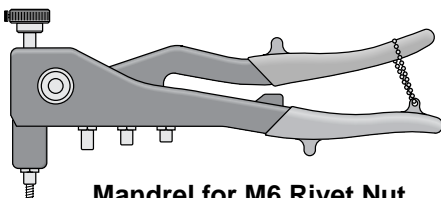
Pop Rivet Installation Tool
VG-1003
Used to install pop rivets.

Mandrel for M6 Rivet Nut
VG-1002
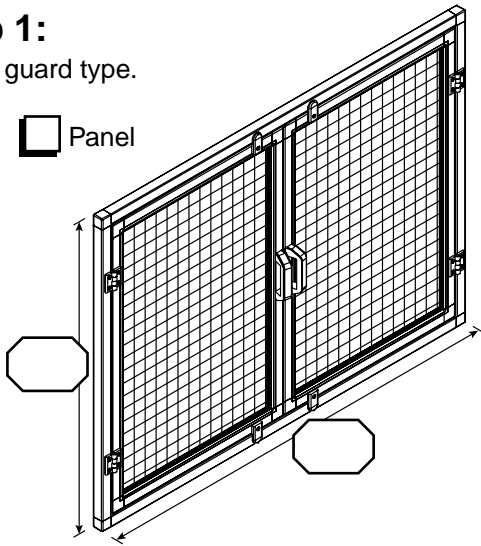Used with rivet nut installation tool to install M6 rivet nuts.

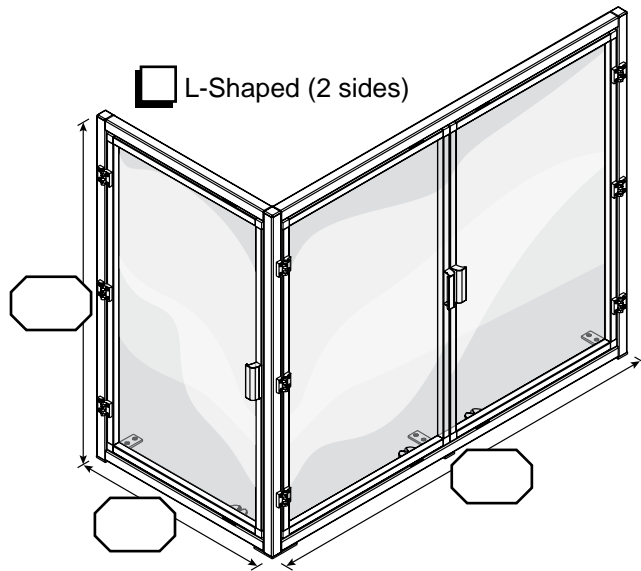# Quick Pick Guard Selector

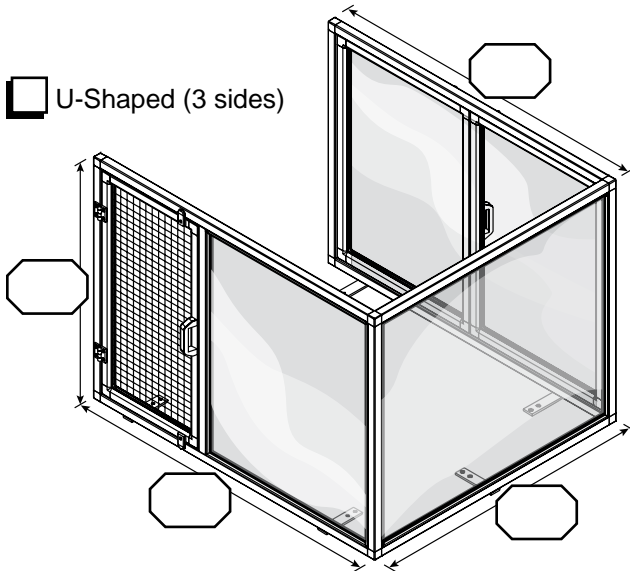*for machine base mounted guards*

Step 1:
Select guard type.

☐ Panel
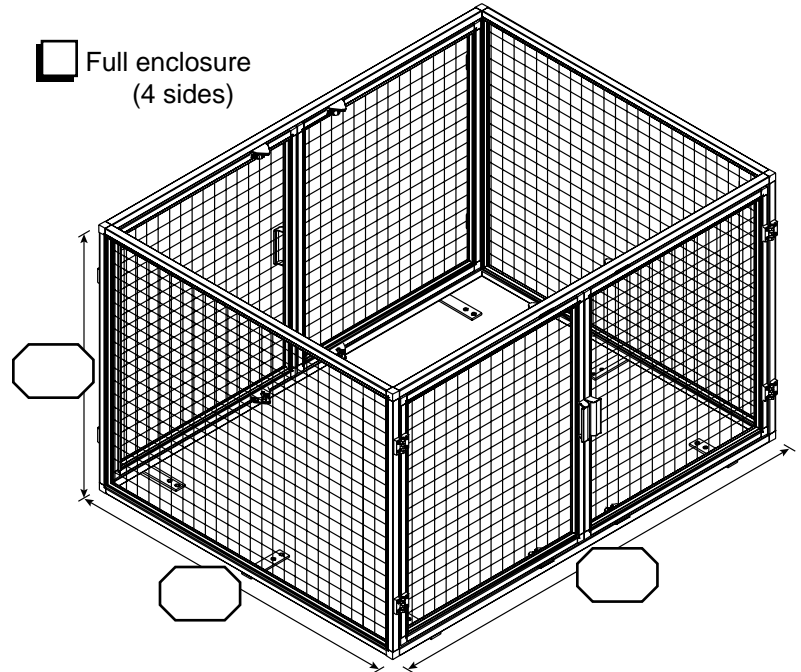
☐ L-Shaped (2 sides)

☐ U-Shaped (3 sides)

☐ Full enclosure
(4 sides)

Step 2:
Select frame material.   ☐ Aluminum   ☐ Stainless steel

Step 3:
Select panel material.   ☐ Wire mesh   ☐ Polycarbonate   ☐ Acrylic

Step 4:
Fill in the required dimensions and door locations and fax this page us. Toll free fax: 1-866-447-6587. We will submit a quotation to complete your project.
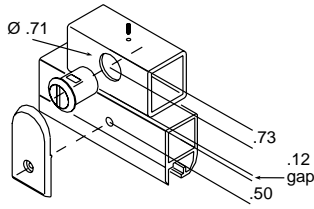
Form submitted by: _____   Company: _____   Phone: _____
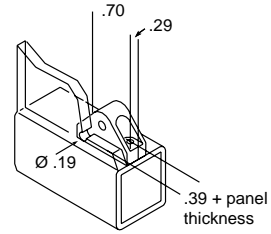
Hardware Mounting Details

See page 29 for the hardware to be used with these components.
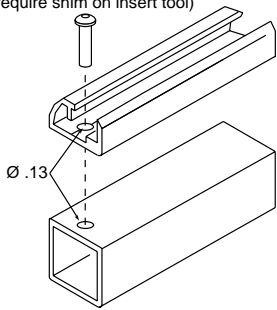

Flush Hinge
FT-HNG-01-AL-

.39
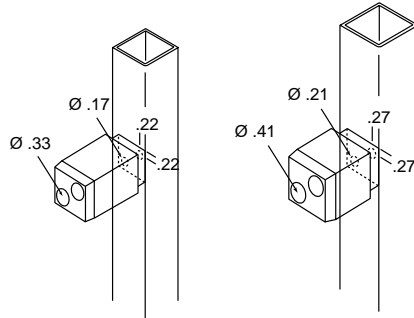1.18
.59
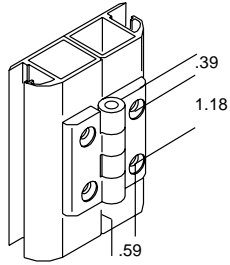
Door Magnet
FT-MAG-21-

Ø .71
.73
.12 gap
.50

**Mounting Block
for Square Tubing**
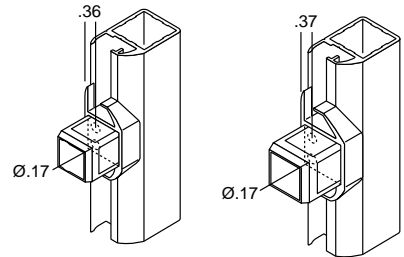FT-PMB-01-

.70
.29
Ø .19
.39 + panel thickness

#8 x 3/8 sheet metal screw
or Ø1/8 x 3/8 pop rivet
(may require shim on insert tool)

Tube Adapters
FT-25C-
FT-30C-

Ø .13

Internal Connectors
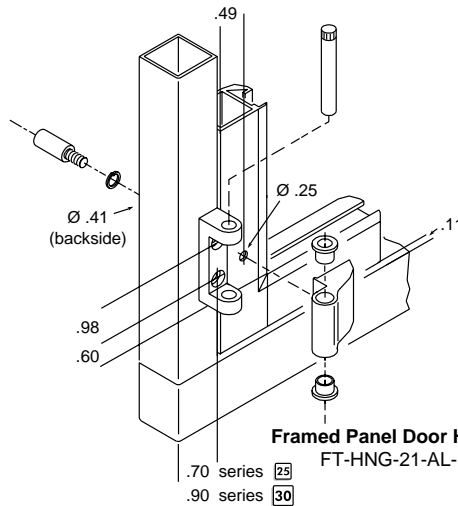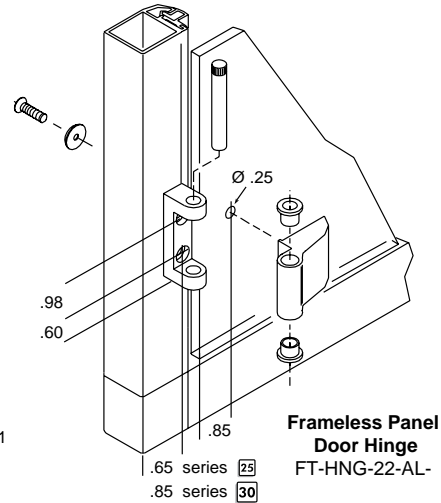FT-25-PA-PLG   FT-30-PA-PLG

Ø .17
Ø .33
.22
.22

Ø .21
Ø .41
.27
.27

Miterless Tee Connectors
FT-25-PA-MT   FT-30-PA-MT

.36
.37
Ø.17
Ø.17
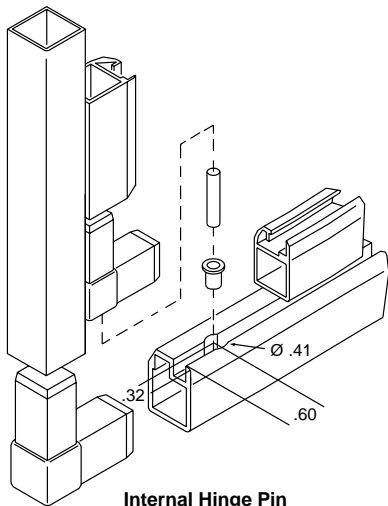
Internal Hinge Pin
FT-PIN2

Ø .41
.32
.60

Framed Panel Door Hinge
FT-HNG-21-AL-

.49
Ø .41 (backside)
Ø .25
.11
.98
.60

.70 series 25
.90 series 30

**Frameless Panel
Door Hinge**
FT-HNG-22-AL-

Ø .25
.98
.60
.85

.65 series 25
.85 series 30
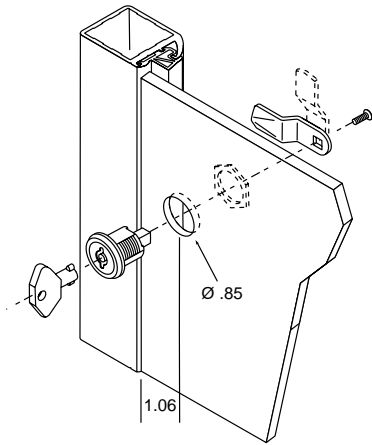
Panel Door Lock/Latch
FT-LCK-01/FT-LAT-02

Ø .85

1.06

Panel Door Latch
FT-LAT-01

1.5

Ø .75

**Framed Door
Compression Latch**
FT-FDLAT-02

.625

Ø .75

Ø .188
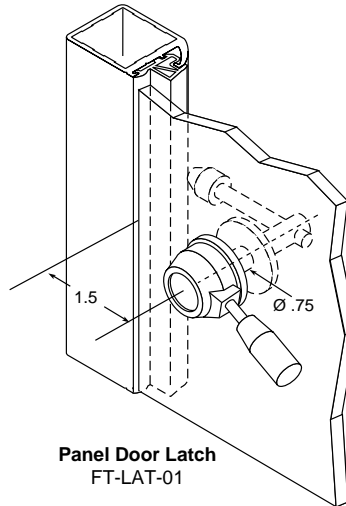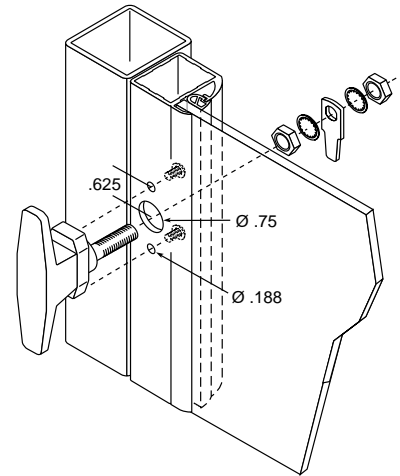
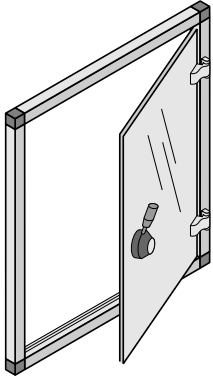# Anchoring to Other Frames and Bases

FlexTech enclosures can be anchored to frames and bases by several means:

Rivet nut
(see page 24)

Series 30 tube

Shoulder bolt
and lock washer
FT-FAST-02

90° Angle Brace
FT-25-BRC-03

Angle Bracket
FT-30-SUP-02

FlexTech
Series 30 tube

T-slotted extrusion

M6 thread
in T-nut

Shoulder bolt
and lock washer
FT-FAST-01
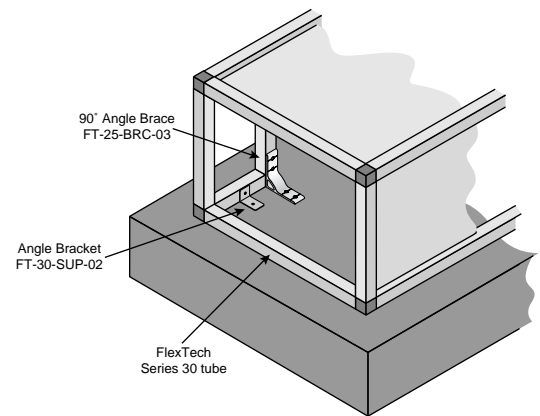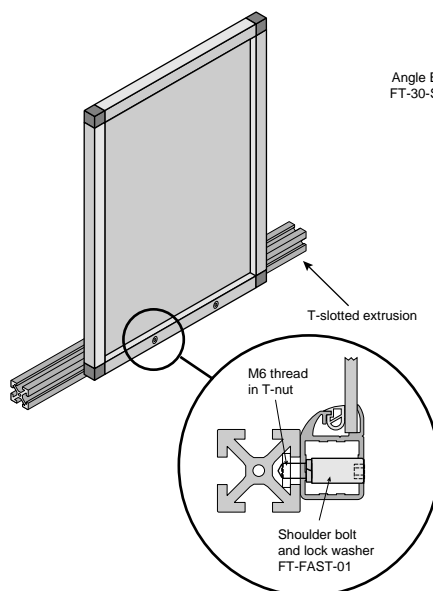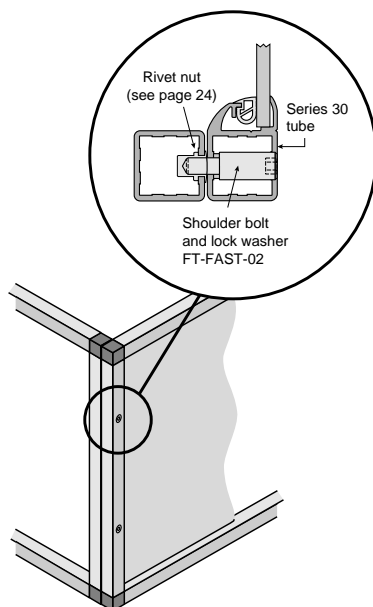
**Attach
To Any
Frame!**

Typical Bill of Materials

Unframed Panel Door Parts:

Description	Part No.	Cut to Size	Quantity
Tube	FT-30T-PS-10-LX	✔	4
Seal	FT-PS-DS1-GR	✔	4
Corner joint	FT-30-PA-J2-GR		4
Hinge	FT-HNG-22-AL-LX		2
Latch	FT-LAT-01		1
Panel	1/4" material	✔	1
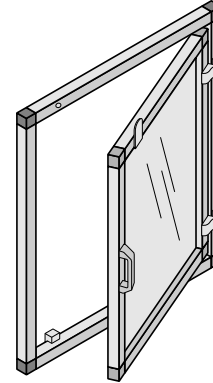
Framed Door Parts:

Description	Part No.	Cut to Size	Quantity
Outer frame tube	FT-30T-10-LX	✔	4
Outer corner joint	FT-30-PA-J2-GR		4
Door panel tube	FT-25T-PF-10-LX		4
Panel glazing bead	FT-PF-GZ1-GR	✔	4
Door panel joint	FT-25-PA-J2M-GR		4
Hinge	FT-HNG-21-AL-AN		2
Closure	FT-MAG-21-GR		1
Door stop	FT-HDS-01-GR		1
Handle	FT-HDL-1C-GR		1
Handle cover	FT-HDL-1-CAP-OR		1
Panel	1/4" material	✔	1

Single Bifold Door Parts:

Description	Key	Part No.	Cut to Size	Quantity
Top and bottom outer frame tube	A	FT-30T-PT-10-AN	✔	2
Left and right outer frame tube	B	FT-30T-10-AN	✔	2
Outer frame corner joint	C	FT-30-PA-J2-GR		4
Door panel tube (both panels)	D	FT-25T-PF-10-AN	✔	8
Panel glazing bead	E	FT-PF-GZ1-GR	✔	8
Inside panel corner joint	F	FT-25-PA-J2M-GR		4
Top hinged corner joint	G	FT-25-PA-J2MRH-GR		1
Bottom hinged corner joint	H	FT-25-PA-J2MLH-GR		1
Top sliding corner joint	I	FT-25-PA-J2MLH-GR		1
Bottom sliding corner joint	J	FT-25-PA-J2MRH-GR		1
Internal hinge	K	FT-PIN2		2
Slide pin	L	FT-PIN1-DL		2
Flush hinge	M	FT-HNG-01-AL-AN		2
Closure	N	FT-MAG-31		2
Handle	O	FT-HDL-1-GR		2
Handle cover	P	FT-HDL-1-CAP-OR		2
Panel	Q	1/4" material	✔	2

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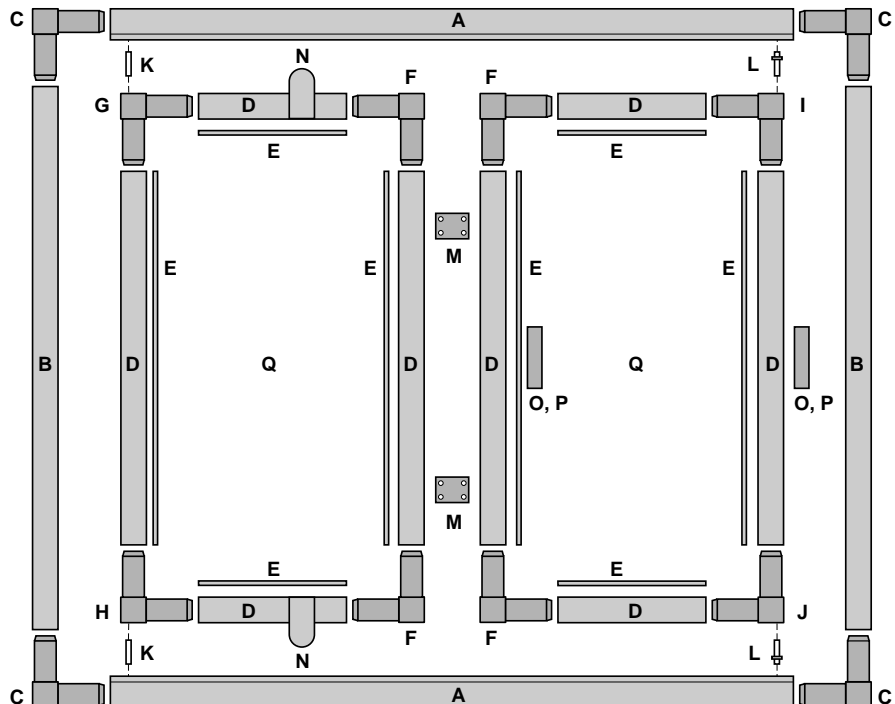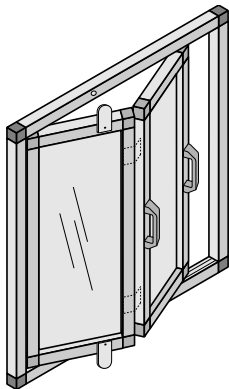
Hardware Table

The following is a table of fasteners used with FlexTech components.
See page 24 for Assembly Accessories.

| Description		Page No.	Hardware Included in Kit	Additional Hardware Required
Internal Tube Connectors (FT-25-PA-PLG)		13	No Kit Available	#8 x 3/4" Sheet Metal Screw
Internal Tube Connectors (FT-30-PA-PLG)		13	No Kit Available	#10 x 3/4" Sheet Metal Screw
Miterless Tee Connectors (FT-25-PA-MT)		13	No Kit Available	#8 x 1" Sheet Metal Screw
Miterless Tee Connectors (FT-30-PA-MT)		13	No Kit Available	#8 x 1" Sheet Metal Screw
Internal Corner Adapters (FT-25-ADP-01-, FT-30-ADP-01-)		14	(2) #4 x 3/8" Flat Head Sheet Metal Screws	None Required
90 Degree Side Adapter (FT-25-ADP-R1-)		14	(2) #4 x 3/8" Flat Head Sheet Metal Screws	None Required
45 Degree Side Adapter (FT-25-ADP-R2-)		14	(2) #4 x 3/8" Flat Head Sheet Metal Screws	None Required
Panel Mounting Blocks (FT-PMB-01-)		16	(2) #8 x 5/8" Pan Head Sheet Metal Screws, (1) #8 x 3/4" Flat Head Sheet Metal Screw, and (1) Panel Mounting Washer	None Required
One Sided Pop-In Panel Clamp (FT-PMC1-)		16	(1) #8 x 1/2" Flat Head Sheet Metal Screw, and (1) Panel Mounting Washer	None Required
Tubing Adapters (FT-25C-,-30C-)		9	No Kit Available	1/8" dia. x 3/8" long Standard Aluminum or Steel Pop Rivets
Flush Hinge (FT-HNG-01-)		20	No Kit Available	10-32 x 5/8" Flat Head Machine Screws with Rivet Nut Inserts
Frame Hinge Kit (FT-HNG-21-)		20	Special M6 Shoulder Bolt (FT-FAST-01) with Lock Washer	(2) 10-32 x 3/4" Pan Head Machine Screws with Rivet Nut Inserts
Panel Door Hinge Kit (FT-HNG-22-)		20	(1) M6 Screw with Panel Washer	(2) 10-32 x 3/4" Pan Head Machine Screws with Rivet Nut Inserts
Internal Hinge Pin Kit (FT-PIN2)		21	Includes Pin, Bushing and Roll Pin	None Required
Gas Spring Mounting Brackets (FT-GSMB-1,-6)		22	No Kit Available	10-32 x 3/4" Pan Head Machine Screws with Rivet Nut Inserts
Door Magnet Kit (FT-MAG-21-,-31-)		18	#10 x 3/4" Pan Head Sheet Metal Screw and (1) 10-32 x 1/2" Set Screw	None Required
Door Magnet Kit (FT-MAG-22-)		18	(2) #10 x 3/4" Pan Head Sheet Metal Screws and (1) #4 x 3/8" Flat Head Sheet Metal Screw	None Required
Door Magnet Kit (FT-MAG-32-)		18	(2) #8 x 5/8" Pan Head Sheet Metal Screws and (1) #4 x 3/8" Flat Head Sheet Metal Screw	None Required
Framed Door Latch (FT-FDLAT-01)		19	(4) #10 x 3/4" Pan Head Sheet Metal Screws	None Required
Door Stop (FT-HDS-01-)		24	#10 x 3/4" Flat Head Sheet Metal Screw	None Required
Door Handles (FT-HDL-1-,-1C-)	Option 1	17	No Kit Available	#10 x 3/4" Pan Head Sheet Metal Screw
	Option 2		No Kit Available	10-32 x 3/4" Pan Head Machine Screw w/Washer and Rivet Nut Insert
90 Degree Angle Brace (FT-25-BRC-01)		23	(4) #10 x 3/4" Pan Head Sheet Metal Screws	None Required
45 Degree Angle Brace (FT-25-BRC-02)		23	(4) #10 x 3/4" Pan Head Sheet Metal Screws	None Required
Joining Plates (FT-25-PLT, FT-30-PLT)		23	No Kit Available	10 x 3/4" Pan Head Sheet Metal Screw
Angle Brackets (FT-30-SUP-01,-02)		23	No Kit Available	10 x 3/4" Pan Head Sheet Metal Screw

SpeedFrame™

Machine Guarding and Safety Enclosure System

Build Stainless Steel Guarding with No Welding!

The SpeedFrame System is a simple, economical tube and joint system used to fabricate safety enclosures for machinery. Choose from aluminum or stainless steel tubes and cast aluminum or plastic joints for applications ranging from general industrial framing to sanitary pharmaceutical enclosures.

Steel Reinforced Plastic Corner Joints

Cast Aluminum Corner Joints
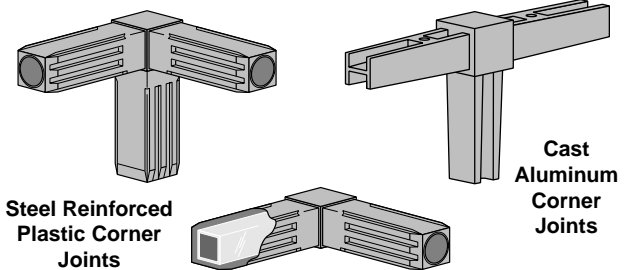
Easy, Economical Assembly
Assemble frames using a soft faced mallet to hammer in corner joints. Attach panels and hardware using simple hand and power tools. No welding, grinding or time consuming cleanup.

Features
◆ Aluminum or stainless steel .050" wall tubes.

◆ Black die cast aluminum or steel reinforced plastic joints.

◆ All the hinges, handles, latches and other accessories you need.
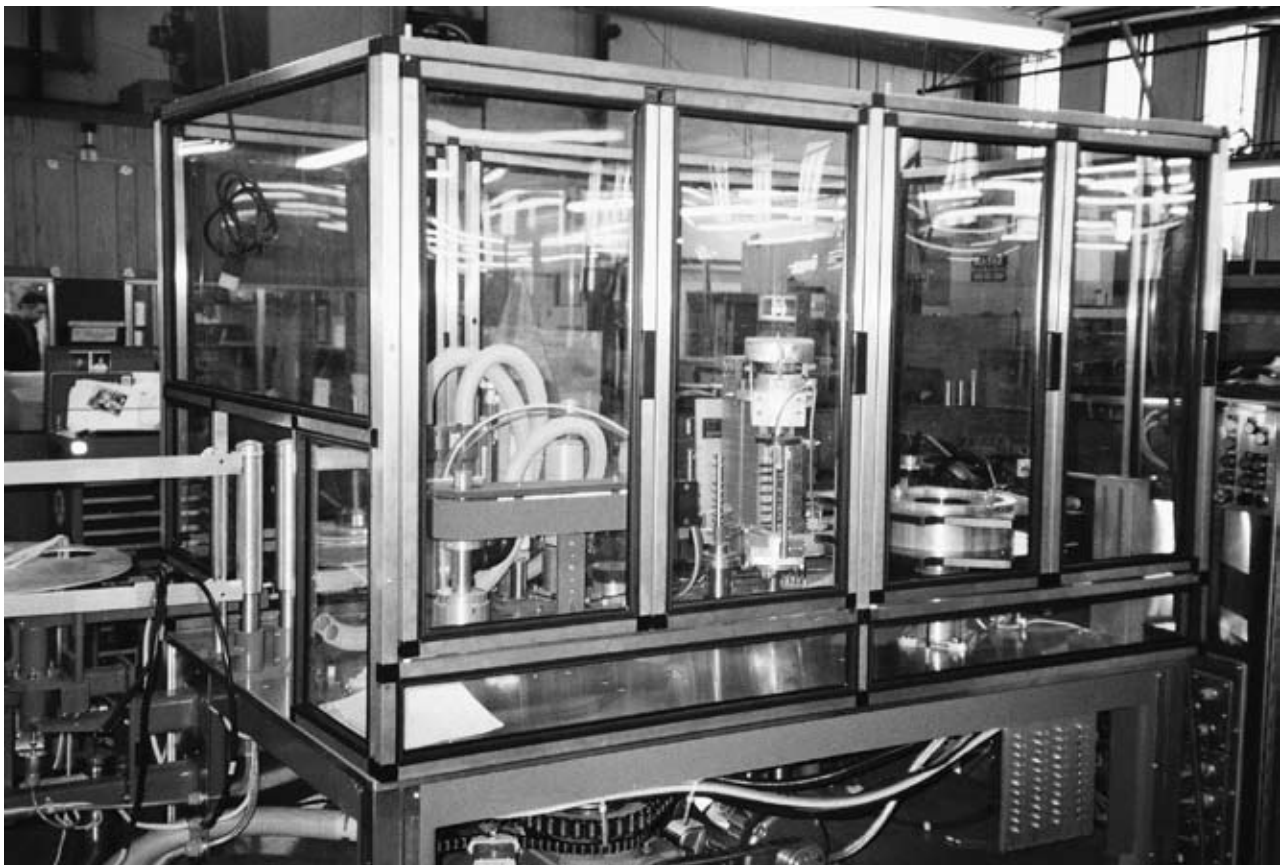
This packaging machine enclosure uses two bifold doors to access nearly all of the enclosed machinery.

Unframed panel doors on this SpeedFrame enclosure provide economical machinery access.

Use SpeedFrame if you:
◆ Need safety barriers on your equipment.

◆ Have corrosive washdown environments requiring a stainless steel structure.

Satisfied customers include:
◆ Pharmaceutical companies requiring stainless steel safety enclosures.

◆ Meat packagers using caustic washdown solutions.

◆ Industrial companies requiring fast and economical assembly of machine enclosures.
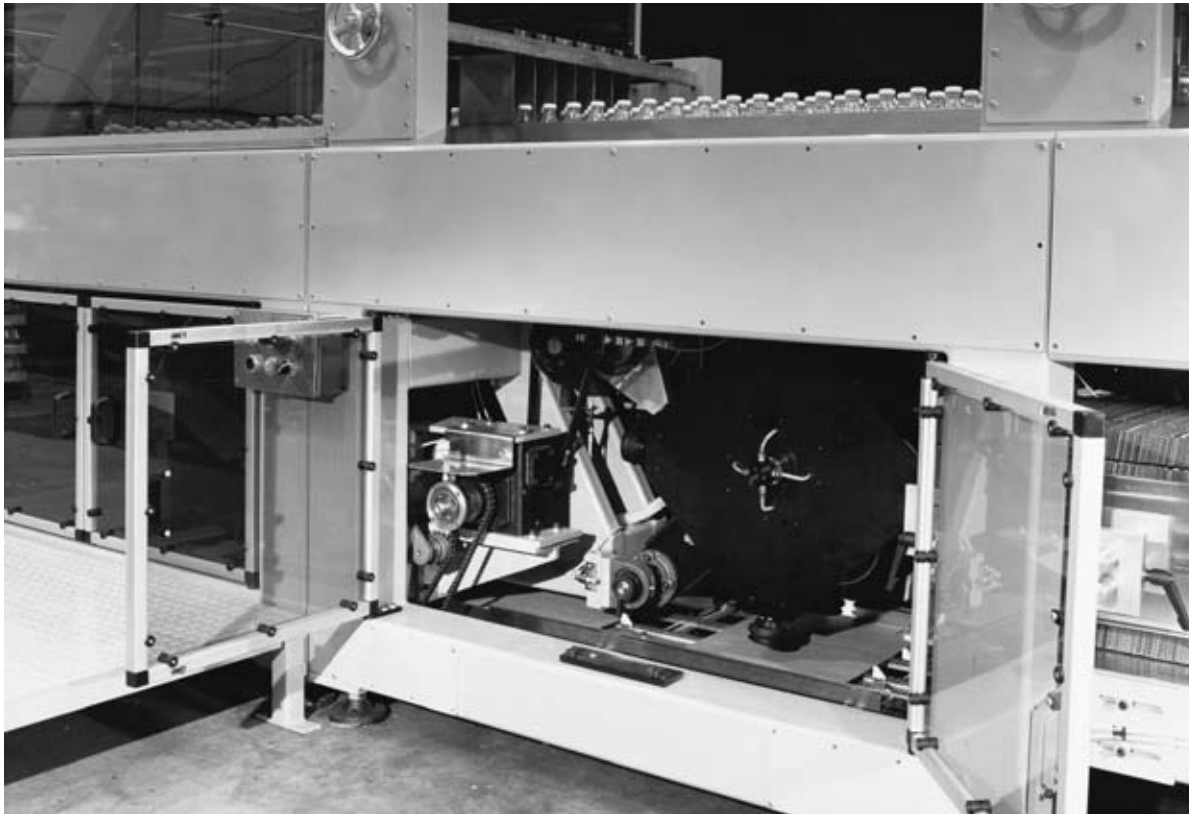
These framed doors are attached directly to this packaging machine frame.

SpeedFrame™

Typical Applications

A
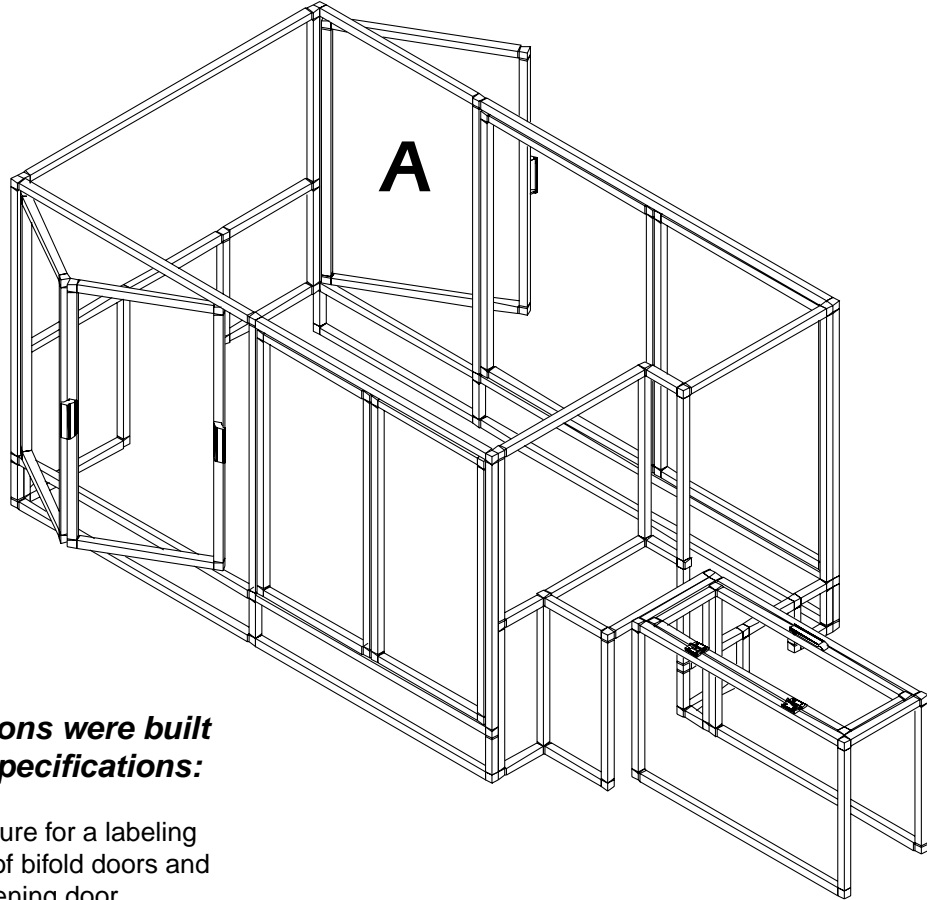
These typical applications were built by us from customer specifications:

A This stainless steel enclosure for a labeling machine includes three sets of bifold doors and an infeed cover with a top opening door.

B The three sets of large double doors on this stainless steel enclosure for a consumer products manufacturer allow nearly complete access to their machine.

B
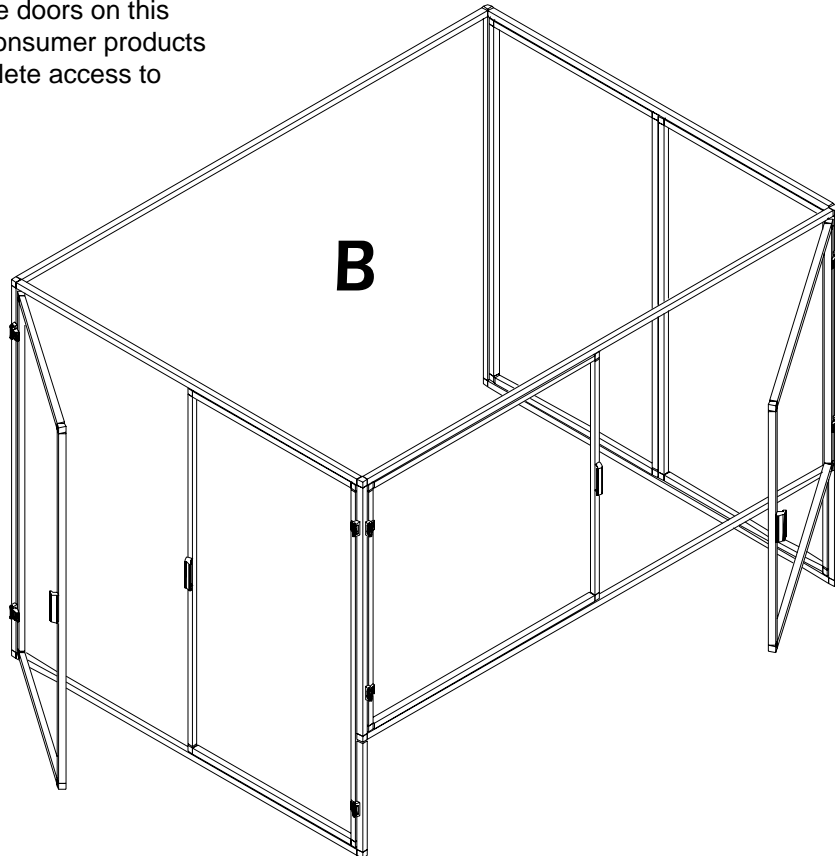
Fixed Panel Options
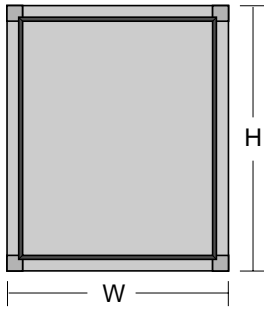
Framed Panel with Glazing Sections

The two piece glazing section attaches to the inside of the frame and seals the panel in place, keeping out moisture and dust.

Tube .... SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint .... SF-C2PR (plastic) or SF-C2 (die cast aluminum with insert)
Tube length .... H or W minus 2" for SF-C2PR
....... H or W minus 2-1/8" for SF-C2
Glazing section SF-GZ1-14
Glazing length .... H or W minus 1-11/16" (miter cut)
Plastic panel dim. .... H or W minus 2-3/8"

SF-GZ1-14
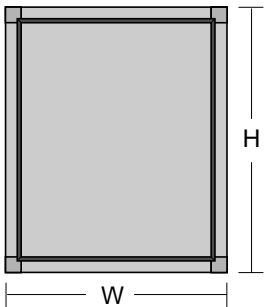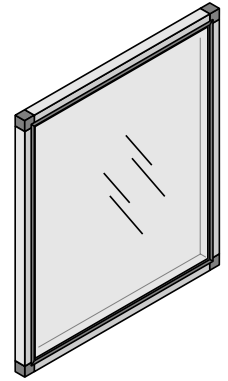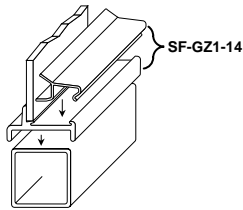
Framed Panel with Cladding Sections

The cladding section attaches to the inside of the frame and holds the panel into place, keeping out moisture and dust.

Tube .... SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint .... SF-C2PR (plastic) or SF-C2 (die cast aluminum with insert)
Tube length .... H or W minus 2" for SF-C2PR
.... H or W minus 2-1/8" for SF-C2
Cladding section .... SF-CD1-14 or SF-CD1-34
Cladding length .... H or W minus 1-5/16" (miter cut)
Plastic panel dim. .... H or W minus 2-3/16"

SpeedFrame
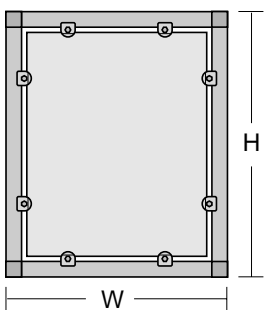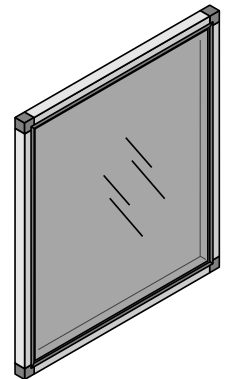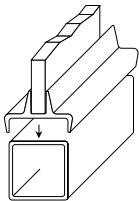
Framed Panel with Panel Clamps

The panel clamps attach to both the tube and the panel, allowing the panel to be removed or replaced. Used where a sealed panel is not required.

Tube .... SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint .... SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length .... H or W minus 2" for SF-C2PR
.... H or W minus 2-1/8" for SF-C2
Plastic panel dim. .... H or W minus 2-9/16" for SF-PC2-
.... H or W minus 2 13/16" for SF-PCH-
Panel Clamps .... SF-PC2-14 or SF-PCH-14 for 1/4" panels
.... SF-PC2-316 for 3/16" panels
.... SF-PCH-38 for 3/8" panels
.... SF-PCH-12 for 1/2" panels
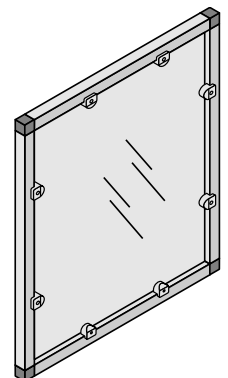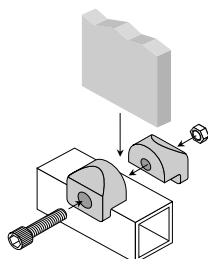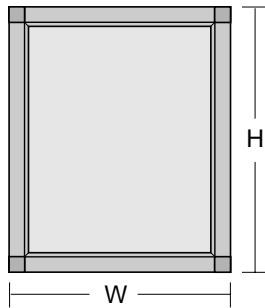
Framed Panel with Glazing Bead

The glazing bead attaches to the aluminum glazing tube and seals the panel into place, keeping out moisture and dust.

Tube SF-1000-AZ1
Corner joint .... SF-C2PR (plastic) or SF-C2 (die cast aluminum with insert)
Tube length .... H or W minus 2" for SF-C2PR
.... H or W minus 2-1/8" for SF-C2
Glazing bead .... SF-GZB-
Glazing bead length .... H or W minus 2"
Plastic panel dim. .... H or W minus 2-3/16"
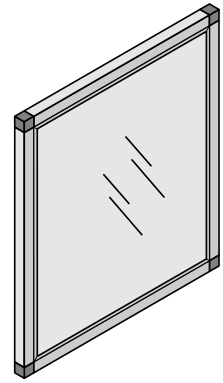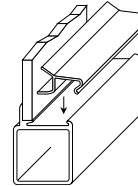
Access Door Options
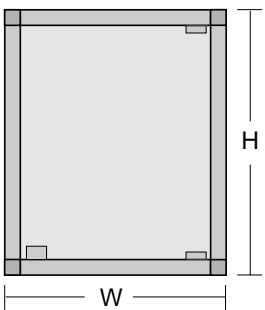
Unframed Panel Door

Unframed panel doors are generally the simplest and least expensive style of door. The panel itself is the complete door. These doors are ideally suited for smaller openings or lighter duty applications.

Frame around door

Tube .... SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint .... SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length .... H or W minus 2" for SF-C2PR
.... H or W minus 2-1/8" for SF-C2
Plastic panel dim. .... H or W minus 2-3/8"
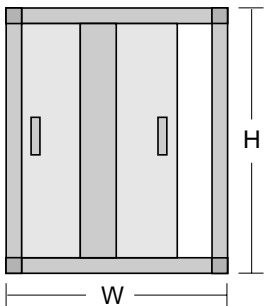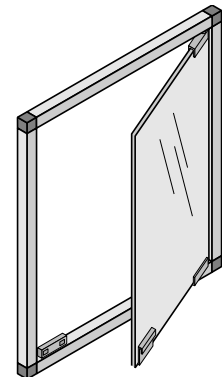
Sliding Panel Door

Economical alternative when little or no door swing space is available. Doors are removable with sliding panel sections in place.

Frame around door

Tube .... SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint .... SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length .... H or W minus 2" for SF-C2PR
.... H or W minus 2-1/8" for SF-C2
Sliding panel cladding .... SF-SP-14-8-TOP (top)
.... SF-SP-14-8 (bottom)
Sliding panel cladding length ...... H minus 2" (top)
.... H minus 2" (bottom)
Plastic panel dim. .... H minus 2-9/16"
.... (W minus 2" / 2) +1/2"
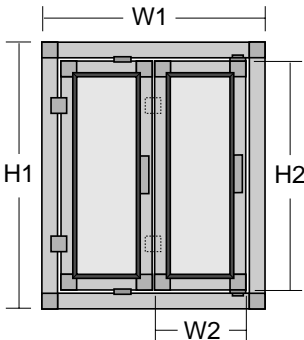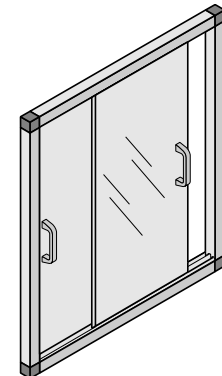
Single Bifold Door using Glazing Sections

Most commonly used when limited door swing space is available and maximum access is needed.

Tube .... SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint .... SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length .... H_1, H_2, W_1 or W_2 minus 2" for SF-C2PR
.... H_1, H_2, W_1 or W_2 minus 2-1/8" for SF-C2
Glazing section SF-GZ1-14
Glazing length .... H_2 or W_2 minus 1-11/16" (miter cut)
Plastic panel dim. .... H_2 or W_2 minus 2-3/8"
Slider .... SF-BDS-BK
Doorstop .... SF-DOORSTOP-BK
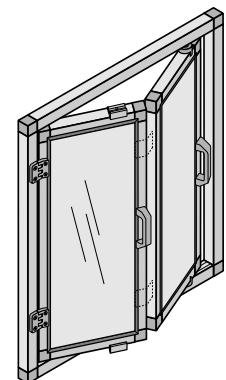
$H_2 = H_1$ minus 2-1/2"
$W_2 = (W_1$ minus 2-1/2") $\div 2$
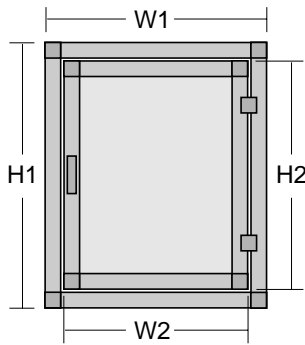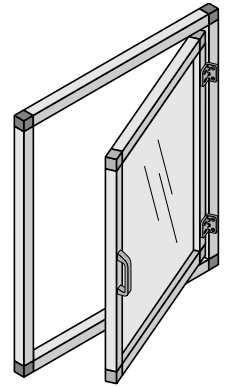
Framed Door

Most common door, appropriate for most applications. Any of the four types of framed panels can be used for the door (see below). The hatch door is most often used on very wide doors. Configurations below result in a 1/4" gap between frame and door when using standard hinges and latches. When using pintel hinges, allow for a 1/8" gap on hinge side.

Frame around door

Tube	SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint	SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length	H_1 or W_1 minus 2" for SF-C2PR
....	H_1 or W_1 minus 2-1/8" for SF-C2

Door Panels…

$H_2 = H_1$ minus 2-1/2", $W_2 = W_1$ minus 2-1/2"

…with Glazing Sections

Tube	SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint	SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length	H_2 or W_2 minus 2" for SF-C2PR
....	H_2 or W_2 minus 2-1/8" for SF-C2
Glazing section	SF-GZ1-14
Glazing length	H_2 or W_2 minus 1-11/16" (miter cut)
Plastic panel dim.	H_2 or W_2 minus 2-3/8"

…with Cladding Sections

Tube	SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint	SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length	H_2 or W_2 minus 2" for SF-C2PR
....	H_2 or W_2 minus 2-1/8" for SF-C2
Cladding section	SF-CD1-14 or SF-CD1-34
Cladding length	H_2 or W_2 minus 1-5/16" (miter cut)
Plastic panel dim.	H_2 or W_2 minus 2-3/16"

…with Panel Clamps

Tube	SF-1000-SS (stainless steel) or SF-1000-AL (aluminum)
Corner joint	SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length	H_2 or W_2 minus 2" for SF-C2PR
....	H_2 or W_2 minus 2-1/8" for SF-C2
Plastic panel dim.	H_2 or W_2 minus 2-9/16" for SF-PC2-
....	H_2 or W_2 minus 2 13/16" for SF-PCH-
Panel Clamps	SF-PC2-14 or SF-PCH-14 for 1/4" panels
....	SF-PC2-316 for 3/16" panels
....	SF-PCH-38 for 3/8" panels
....	SF-PCH-12 for 1/2" panels

…with Glazing Bead

Tube	SF-1000-AZ1
Corner joint	SF-C2PR (plastic) or SF-C2 (cast aluminum with insert)
Tube length	H_2 or W_2 minus 2" for SF-C2PR
....	H_2 or W_2 minus 2-1/8" for SF-C2
Glazing bead	SF-GZB-
Glazing length	H_2 or W_2 minus 2"
Plastic panel dim.	H_2 or W_2 minus 2-3/16"

SpeedFrame
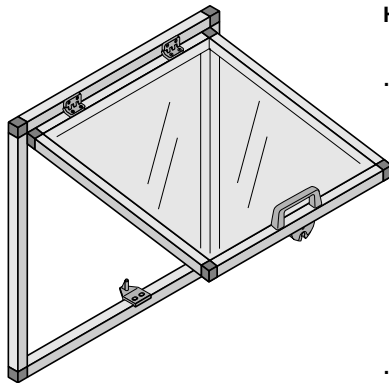
Tubing

- 304 brushed stainless steel (**-SS**) or clear anodized 6063 aluminum (**-AL**) tubes
- 1" Sq. x .050" wall
- Aluminum tubes also available with glazing profiles
- Available in 8' and 10' lengths. Basic square tubes are also available in 20' lengths

Square Tubing
SF-1000-SS-08
SF-1000-SS-10
SF-1000-SS-20
SF-1000-AL-08
SF-1000-AL-10
SF-1000-AL-20
Used for basic frame structure.
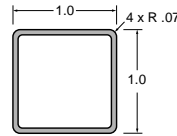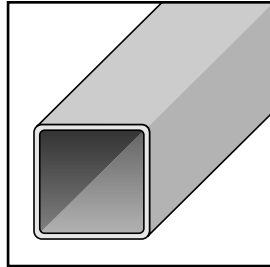
Aluminum Glazing Tube
SF-1000-AZ1-08
SF-1000-AZ1-10
Retains and seals 3/16" to
1/4" thick panels. Requires
SF-GZB- glazing bead.
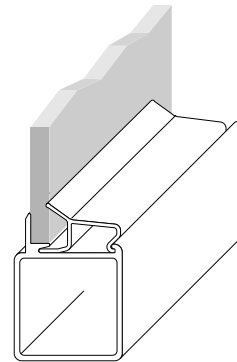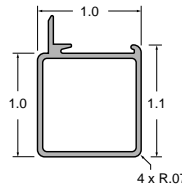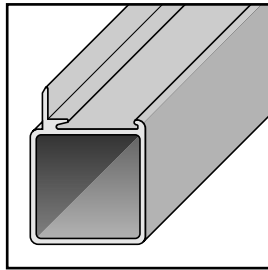
Aluminum Glazing Tube
SF-1000-AZ2-08
SF-1000-AZ2-10
Retains and seals 3/16" to 1/4"
thick panels on inside 90° corner.
Requires SF-GZB- glazing bead.
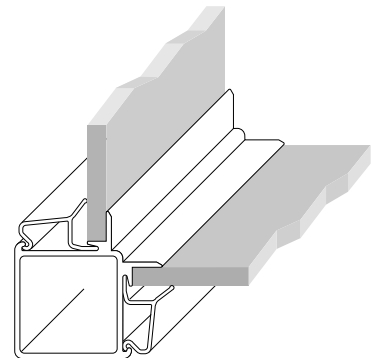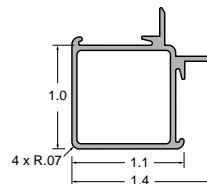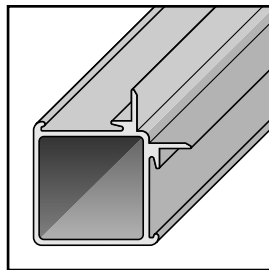
Aluminum Glazing Tube
SF-1000-AZC-08
SF-1000-AZC-10

Retains and seals adjacent 3/16"
to 1/4" thick panels. Requires
SF-GZB- glazing bead.

1.7

4 x R.07

1.0

1.2
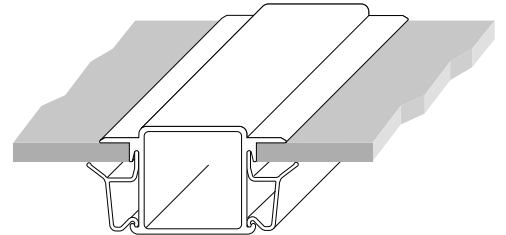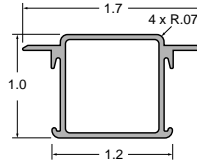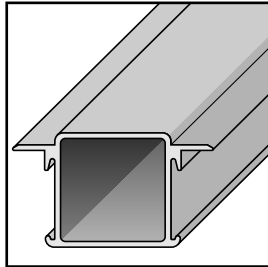
Glazing Bead
SF-GZB-B-8 (black)

Extruded black PVC.
Secures 3/16" to 1/4" thick
panels in tubes. Sealing
lip is soft PVC which
compresses against panel.
Available in 8 foot nominal lengths.

.70

.46

.77

SpeedFrame
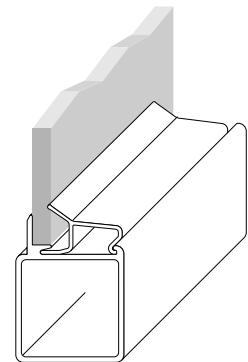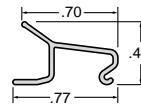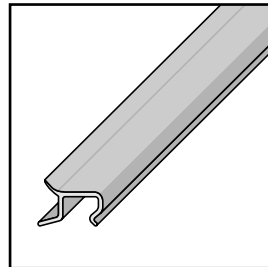
*Speed*Frame™

Corner Joints: Aluminum

- ■ Die-cast aluminum alloy joints have a black powder coated finish
- ■ Configurations for use on SpeedFrame tubing
- ■ All aluminum joints supplied with proper number of ABS inserts (SF-IB)
- ■ Integrated 0.16" hole for drive screw (pg. 47) or hinge pin
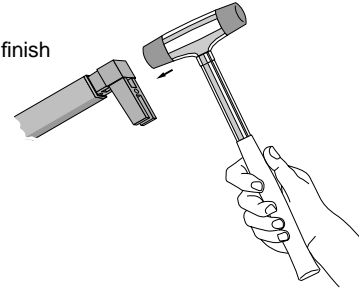
2-Way Corner Joint SF-C2
Connects 2 tubes at a corner.

1.0 1.91
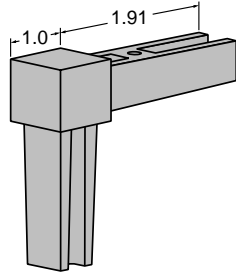
2-Way Rounded Corner Joint SF-CR2
Connects 2 tubes at a corner.

R15/16 1.91
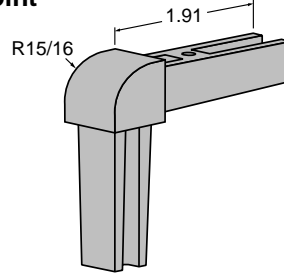
3-Way Tee Joint SF-T3
Connects 3 tubes at a tee.

1.0 .75 typ. 1.91
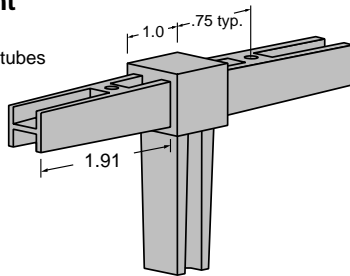
3-Way Corner Joint SF-C3
Connects 3 tubes at a corner.

1.0 1.91
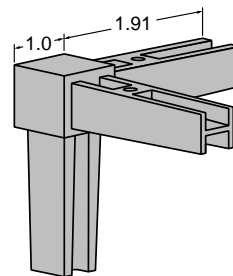
3-Way Rounded Corner Joint SF-CR3
Connects 3 tubes at a corner.

R15/16 1.91
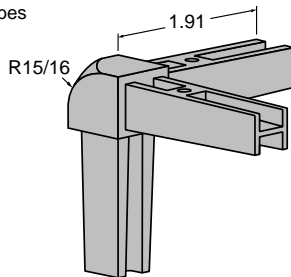
4-Way Corner Joint SF-CT4
Connects 4 tubes at a corner.

1.0 1.91
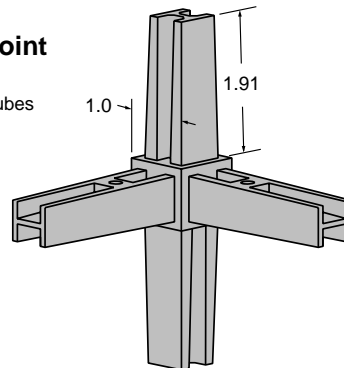
Tubing Inserts

SF-IB (black)
Rigid black ABS inserts are used for permanent structures and are supplied with each joint.

SF-IW (white)
White polyethylene inserts are used for structures requiring frequent disassembly and can be ordered separately.

1.0 -.075 1.57
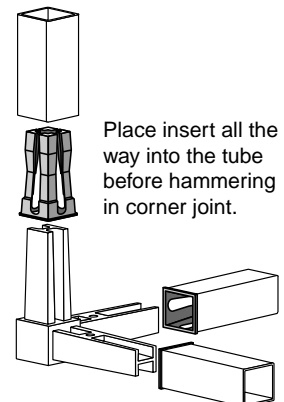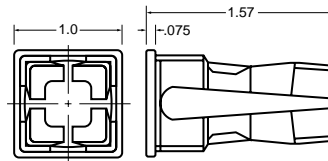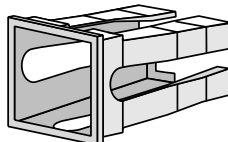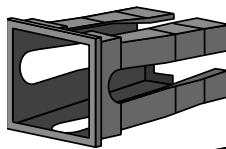
Place insert all the way into the tube before hammering in corner joint.

Plastic Corner Joints: Steel Reinforced

- Glass filled polyamide construction
- Three configurations for use on SpeedFrame tubing
- Joints connect into tubing without inserts
- For heavy duty applications, steel reinforced joints are 50% stronger

Steel Reinforced for Maximum Strength!

2-Way Plastic Corner Joint SF-C2PR-BK
Connects 2 tubes at a corner.

1.0 2.2 .90
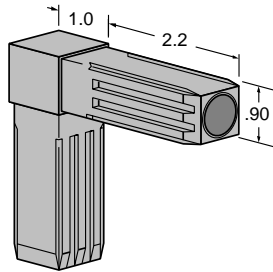
Molded in steel reinforcement tube
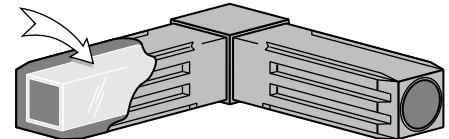
3-Way Plastic Tee Joint SF-T3PR-BK
Connects 3 tubes at a tee.

2.2 1.0 .90
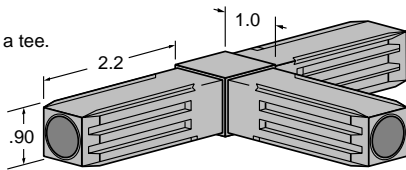
3-Way Plastic Corner Joint SF-C3PR-BK
Connects 3 tubes at a corner.

2.2 1.0 .90
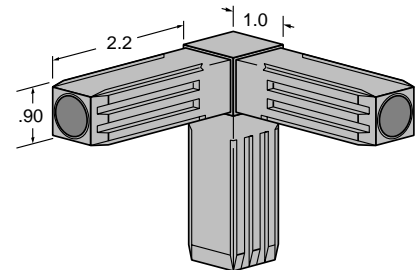
Internal Connector SF-C1P

Connects two tubes at 90° without using a 90° Corner Joint. Used to make 4, 5, and 6 way connections. Available in gray polyamide.

1.38 .90 .90

Economical and Corrosion Resistant!

4 way connection shown

(866) 765-8744 Fax: (866) 447-6587 **www.solusii.com**

SpeedFrame

*Speed*Frame™
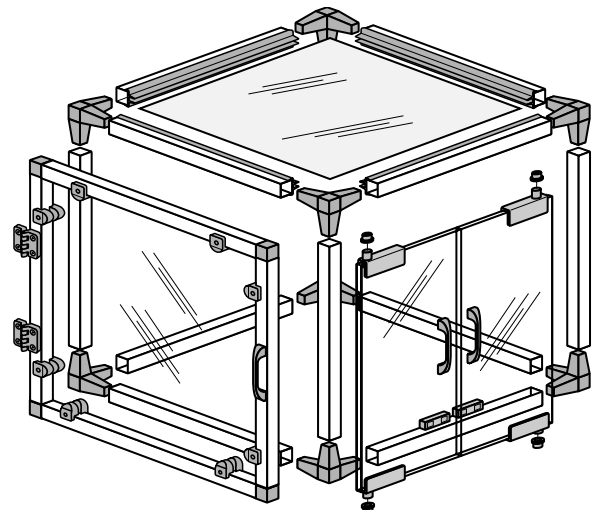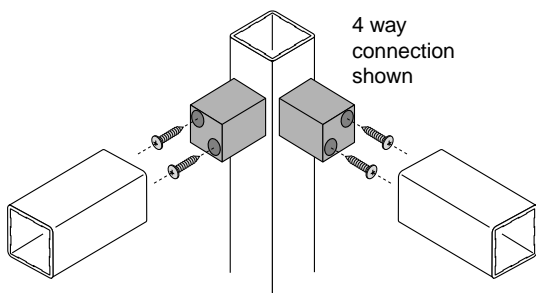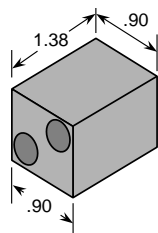
Cladding Sections

- Durable, black PVC
- Snaps tightly onto 1" tube
- Fins conceal edges of panels
- Attached before frame assembly

Single Cladding Section
SF-CD1-14-8
Holds single panel of plastic, wood or laminate. Cladding fin accepts 1/4" panel. Eight foot nominal lengths.

1.18
.26
.08
1.02

1/4"
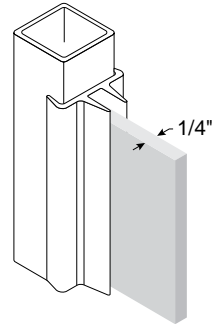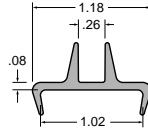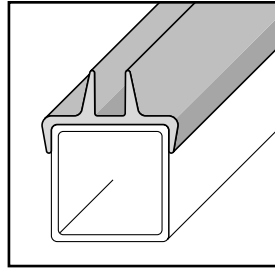
2-Way Cladding Section
SF-CD2-14-8
Holds two panels of plastic, wood or laminate in a corner. Cladding fin accepts 1/4" panels.
Eight foot nominal lengths.

1.6
1.2
.26
.08
1.0

1/4"
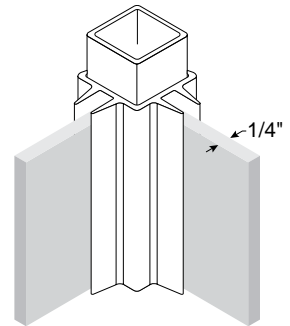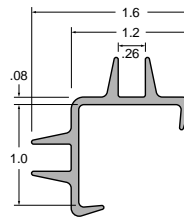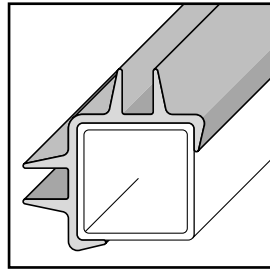
Top Sliding Panel Cladding Section
SF-SP-14-8-TOP
Used to make sliding doors with panels up to 1/4" thick. Deeper channel allows for panel removal.

1.02
.08
.26
1.18

Lift-Out Sliding Door Panels
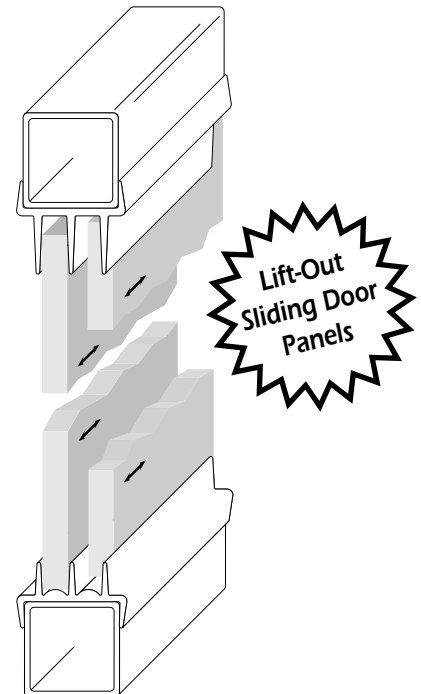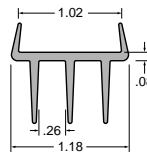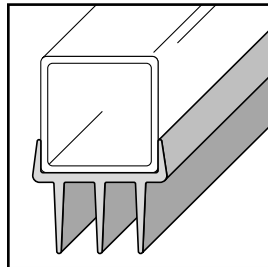
Bottom Sliding Panel Cladding Section
SF-SP-14-8
Used to make sliding doors with panels up to 1/4" thick.

1.18
.26
1.02
.13
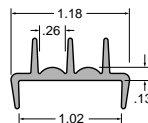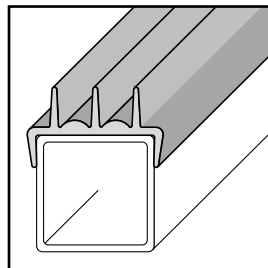
Glazing Sections :

- Durable, black PVC
- Snaps tightly onto 1" tube
- Designed for panel removal
- May be attached after frame assembly

Single Glazing Section
SF-GZ1-14-8

Holds 3/16" to 1/4" thick glass or plastic panels. Each section consists of two parts: the cladding base strip and snap-in glazing bead. Sealing lip is soft PVC which compresses against panel. Eight foot nominal lengths.

.25
1.00
1.16
.19

3/16" to 1/4"

SF-GZ1-14
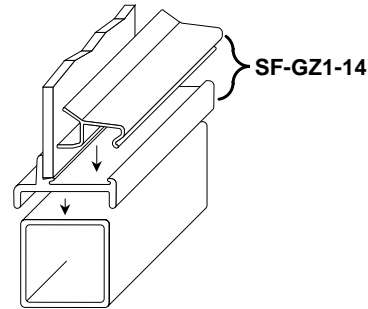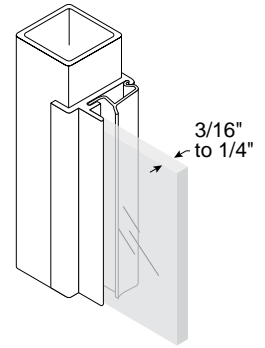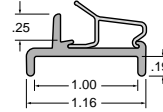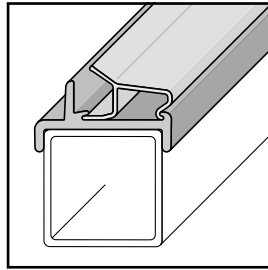
2-Way Glazing Section
SF-GZ2-14-8

Holds 3/16" to 1/4" thick glass or plastic panels in a corner. Each section consists of two parts: the cladding base strip and snap-in glazing bead. Sealing lip is soft PVC which compresses against panel. Eight foot nominal lengths.

.25
1.00
.19

3/16" to 1/4"

SpeedFrame
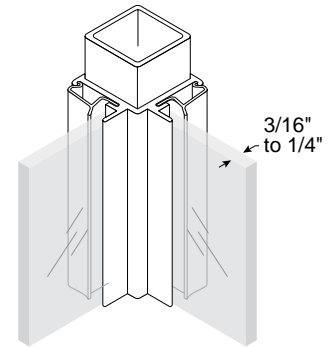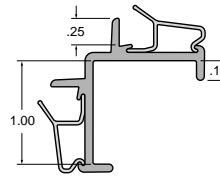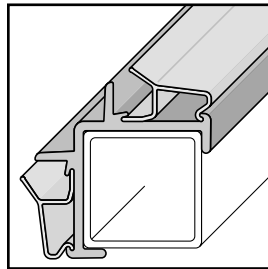
SpeedFrame™
Panel Clamps

SF-PC3-116 (black)
SF-PC3-116-GR (gray)
Black or gray acetal clamps with stainless steel screw and nickel plated brass nut. Designed to hold 14 ga. to 16 ga. panels in 1" square SpeedFrame tubing or FlexTech Series 25 tubing. Recommended maximum panel sizes: vertical panels: 24" x 36"horizontal panels: 24" x 24"
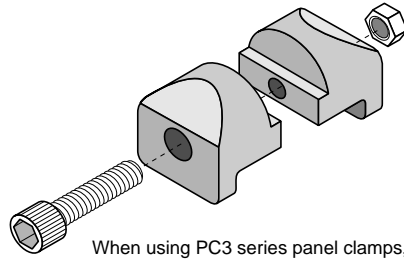
SF-PC3-14 (black)
SF-PC3-14-GR (gray)
Black or gray acetal clamps with stainless steel screw and nickel plated brass nut. Designed to hold 1/4" panels in 1" square SpeedFrame tubing or FlexTech Series 25 tubing. Recommended maximum panel sizes: vertical panels: 24" x 36" horizontal panels: 24" x 24"
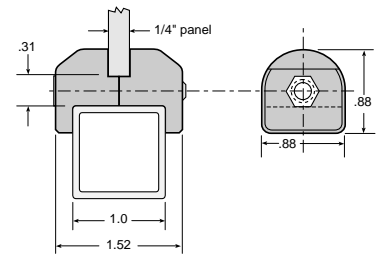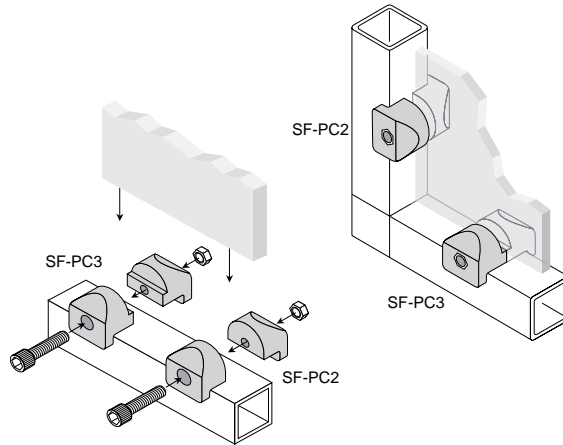
Panel Clamp
SF-PC2-316 (black)
SF-PC2-316-GR (gray)
Black or gray acetal clamps with stainless steel screw and nickel plated brass nut. Designed to hold 3/16" panels in 1" square SpeedFrame tubing or FlexTech Series 25 tubing. Recommended maximum panel sizes: vertical panels: 24" x 36" horizontal panels: 24" x 24"
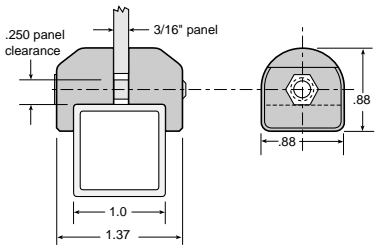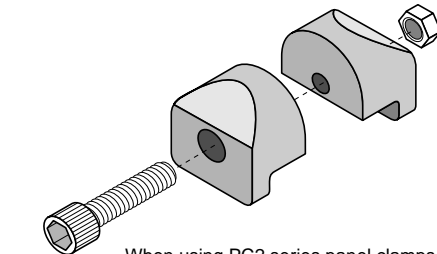
SF-PC2-14 (black)
SF-PC2-14-GR (gray)
Black or gray acetal clamps with stainless steel screw and nickel plated brass nut. Designed to hold 1/4" panels in 1" square SpeedFrame tubing or FlexTech Series 25 tubing. Recommended maximum panel sizes: vertical panels: 24" x 36" horizontal panels: 24" x 24"

Heavy Duty Panel Clamp
SF-PCH-14 (black)
SF-PCH-14-GR (gray)
Black or gray acetal clamps with stainless steel fasteners and nickel plated brass nut. Designed to hold 1/4" panels in 1" square SpeedFrame tubing. Recommended maximum panel sizes: vertical panels: 36" x 96" horizontal panels: 24" x 72"
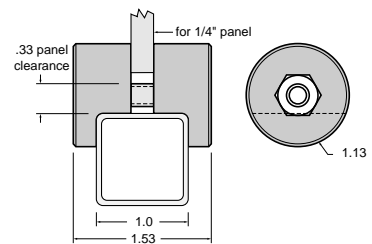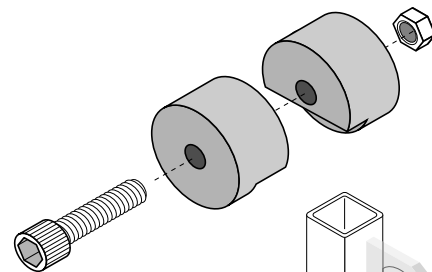
SF-PCH-38 (black)
SF-PCH-38-GR (gray)
Black or gray acetal clamps with stainless steel fasteners and nickel plated brass nut. Designed to hold 3/8" panels in 1" square SpeedFrame tubing. Recommended maximum panel sizes: vertical panels: 36" x 96" horizontal panels: 24" x 72"
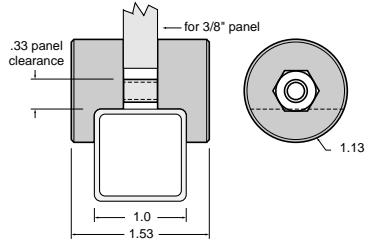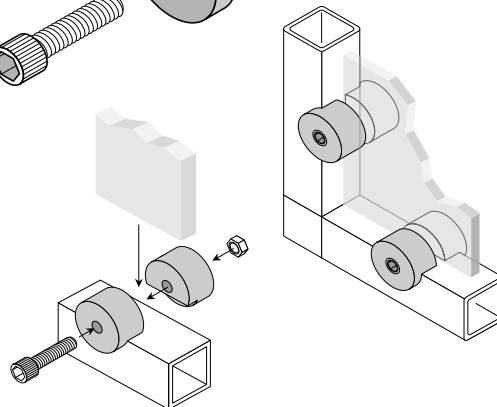
SF-PCH-12 (black)
SF-PCH-12-GR (gray)
Black or gray acetal clamps with stainless steel fasteners and nickel plated brass nut. Designed to hold 1/2" panels in 1" square SpeedFrame tubing. Recommended maximum panel sizes: vertical panels: 36" x 96" horizontal panels: 24" x 72"

NEW

When using PC3 series panel clamps, panel height or width is tube to tube inside dimension minus 11/16".

SF-PC2

SF-PC3

SF-PC3

SF-PC2

When using PC2 series panel clamps, panel height or width is tube to tube inside dimension minus 9/16".

When using PCH series panel clamps, panel height or width is tube to tube inside dimension minus 3/4".
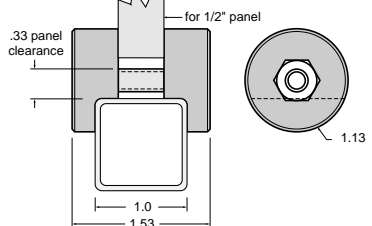
Handles

Standard Duty Handle
VG-631-14 (black)
VG-631-14-GR (gray)
Reinforced black or gray
polyamide with brass insert.

1.44

1.02
.51

4.72 4.12 3.47

1/4-20 UNC
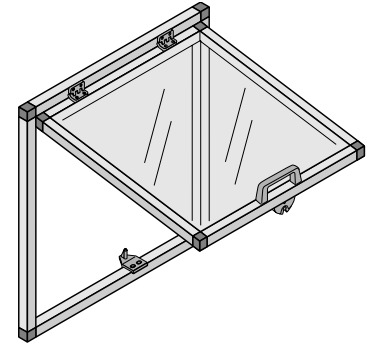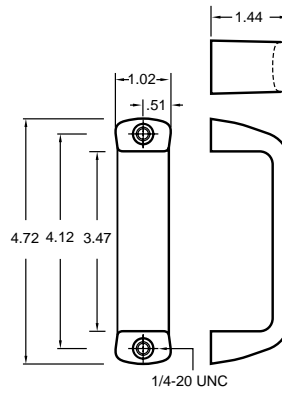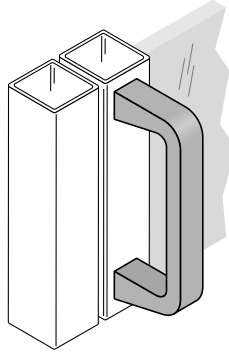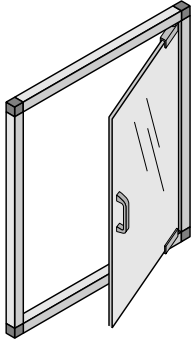
Safety Handle
VG-630-BK
Reinforced black polyamide
with 304 stainless steel screws
and polyamide caps included.
Closed design allows easy
opening without pinched
fingers and scraped
knuckles when handles
are mounted side by side
on adjacent doors. Fasteners
and tube hole caps included.
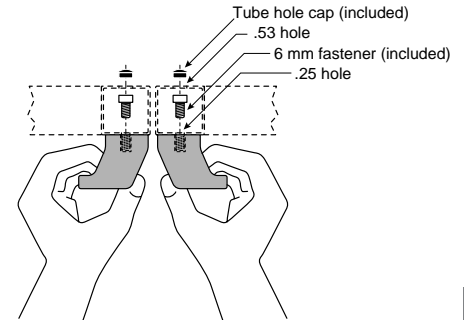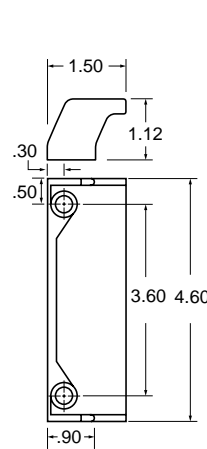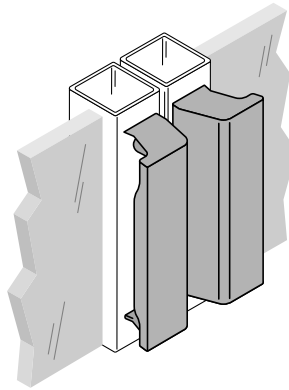
For additional handles, see page 17

1.50

.30
1.12

.50

3.60 4.60

.90

Tube hole cap (included)
.53 hole
6 mm fastener (included)
.25 hole

Prevents Pinched Fingers

Doorstop

Doorstop
SF-DOORSTOP-BK
Reinforced black polyamide doorstop
positions closed door flush with
frame. Designed for 1/4" gap between
door and frame. Fastener included.

1"
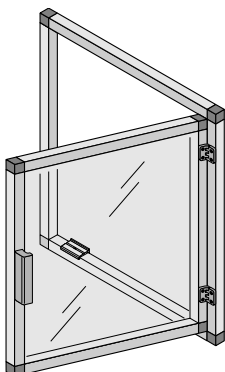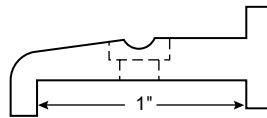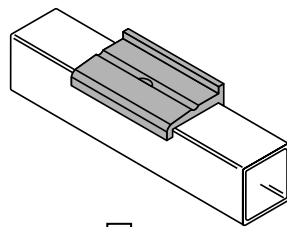
Bifold Door Slider

Door Slider for
Bifold Doors
SF-BDS-BK
Black acetal Bifold Door Slider is
used on the top and bottom sliding
ends of bifold doors. The pin is
inserted into a .396" dia. hole drilled
into the middle of a corner joint.

.39

.82

.22

1.02
1.50
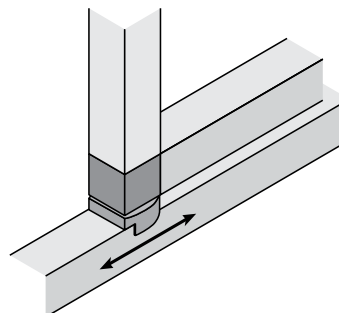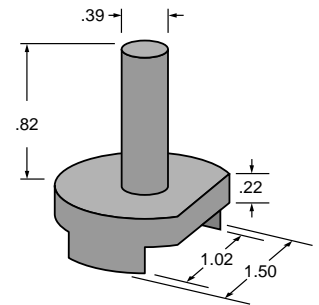
Latches

Spring Latch
SF-SLATCH-BK

Reinforced black polyamide latch for framed doors. Requires handle on door. Mounting hardware included. Designed for 1/4" gap between door and frame.

1.5"

1"

1"

Spring loaded tab
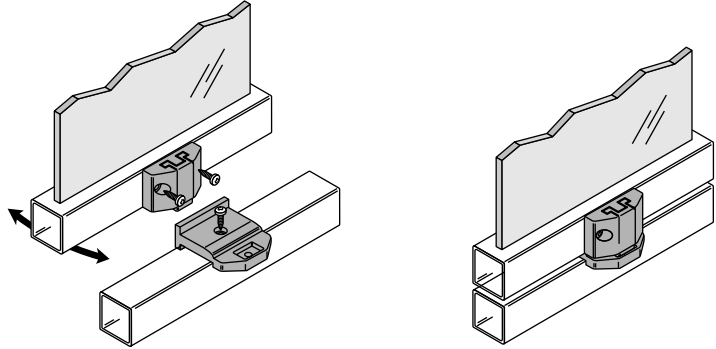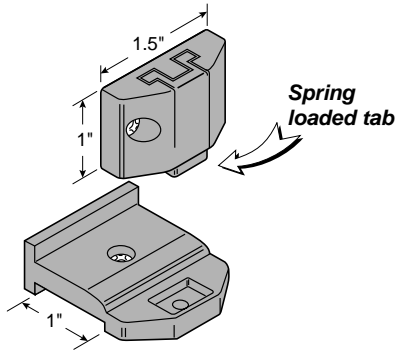
Finger Lift Latch
SF-FLATCH-BK

Reinforced black polyamide latch for framed doors. No door handle required. Mounting hardware included. Designed for 1/4" gap between door and frame.

1.5"

1"

1"

Spring loaded tab Lift to release
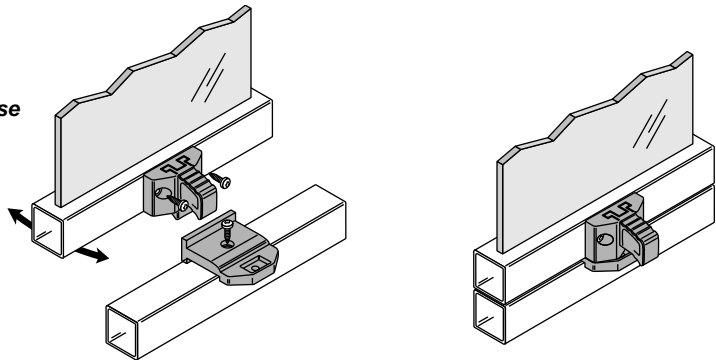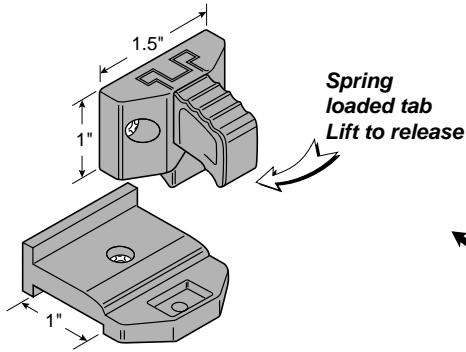
V Latch
SF-VLATCH-BK

Reinforced black polyamide latch for framed doors. Requires handle on door. Mounting hardware included. Designed for 1/4" gap between door and frame.

2.6"

2.2"

.60"

.82
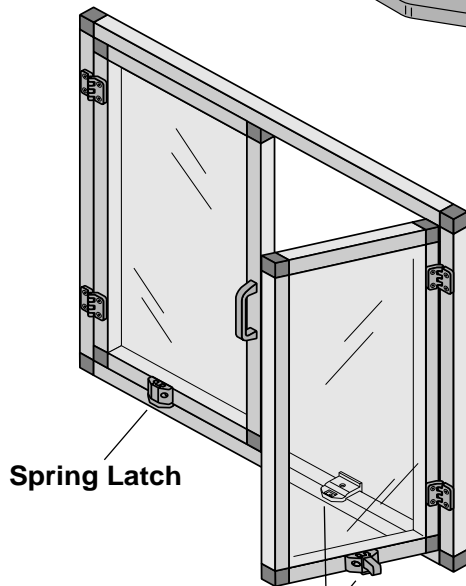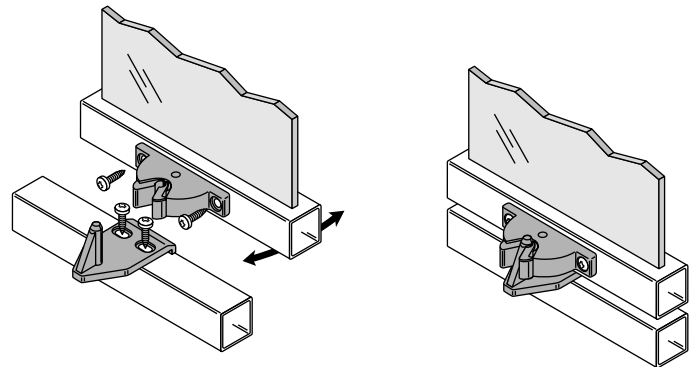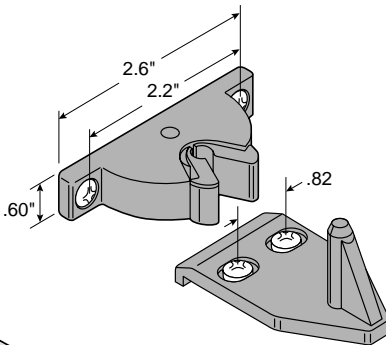
Spring Latch

Finger Lift Latch
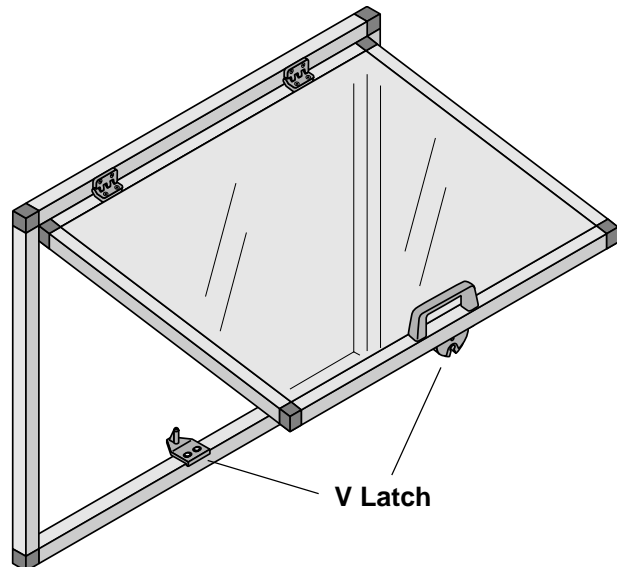
V Latch

Latch Kits

Latch Kit
SF-LK-B
Kit includes a zinc plated steel handle/pawl assembly, a polymer keeper and 2 steel doorstops. Mounting hardware included. Designed for 1/4" gap between door and frame.

2.13"

1.25"

Retainer plate for optional 3-point latching
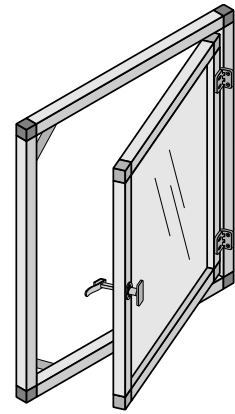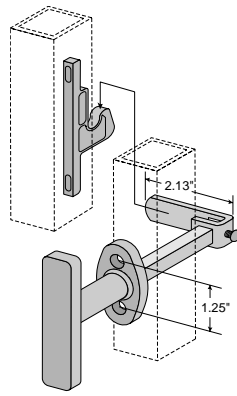
Latch Kit
SF-LK-C
Kit includes a black zinc plated steel handle/pawl assembly, and 2 steel doorstops. Designed for 1/4" gap between door and frame.

1.88"

1.50"
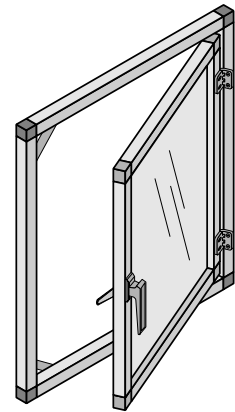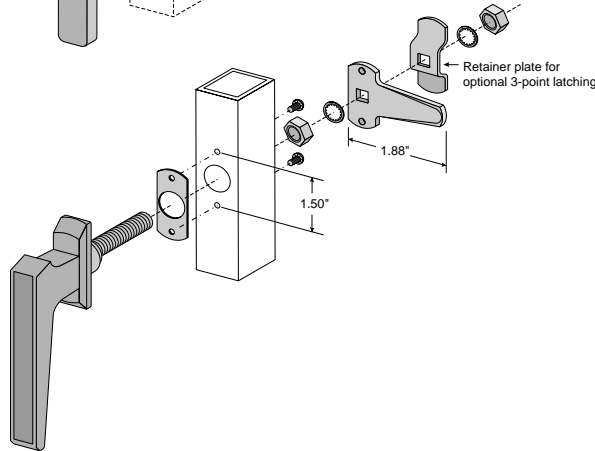
Shelf Supports

Shelf Support
SF-SR-1
SF-SR-2
SF-SR-3
SF-SR-4
Black enameled steel support hooks firmly around horizontal tubes to support rigid 1/4", 1/2", 3/4" or 1" shelf panels. Maximum static load is 200 lbs. per 4 supports.

.19 thru

1.00

.50

.38 · .25 · .06 · **SF-SR-1**
1.00 · 1.10

.38 · .50 · .06 · **SF-SR-2**
1.00 · 1.10

.38 · .75 · .06 · **SF-SR-3**
1.00 · 1.10

.38 · 1.00 · .06 · **SF-SR-4**
1.00 · 1.10
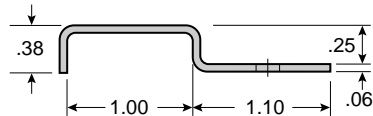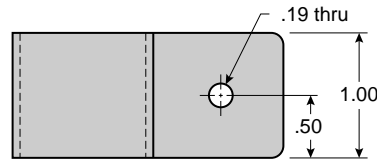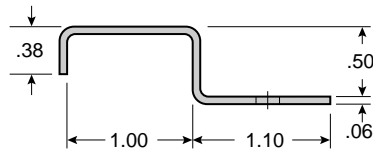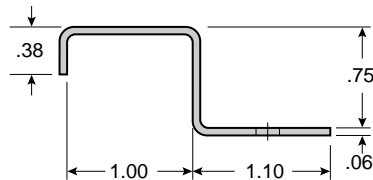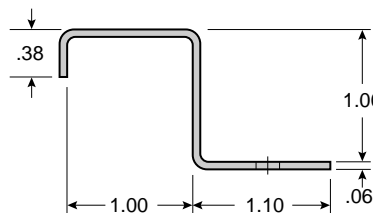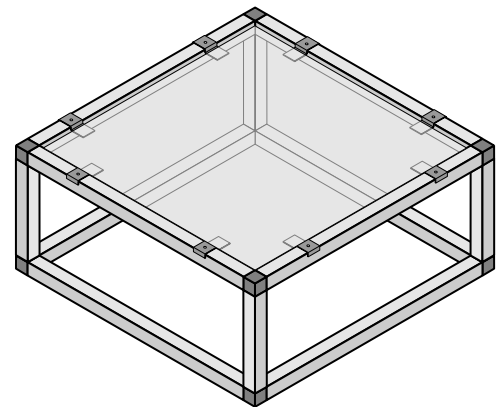
Hinges

Pintel Hinges:
Free Swinging,
Size C and D
SF-HNG-CLFS
SF-HNG-CRFS
SF-HNG-DLFS
SF-HNG-DRFS
Made of glass reinforced,
black polyamide.

SF-HNG-CRFS   SF-HNG-CLFS

SF-HNG-DRFS   SF-HNG-DLFS

Free swinging, non-lift off doors with
size C or D hinges requires:

SF-HNG-CLFS
or
SF-HNG-DLFS

SF-HNG-CRFS
or
SF-HNG-DRFS

SF-HNG-CRFS
or
SF-HNG-DRFS

SF-HNG-CLFS
or
SF-HNG-DLFS

Lift-Off Doors!

Free swinging, lift-off
doors with size C or D
hinges requires:

SF-HNG-CLFS
or
SF-HNG-DLFS

SF-HNG-CRFS
or
SF-HNG-DRFS

1/8" Typ.
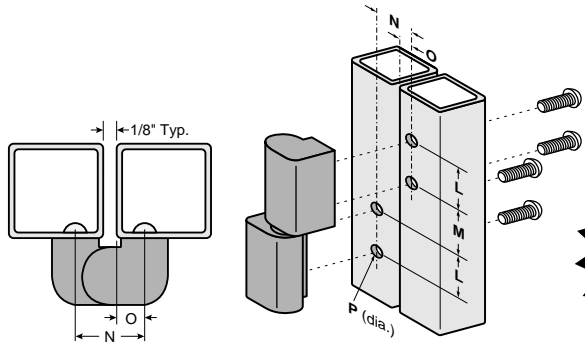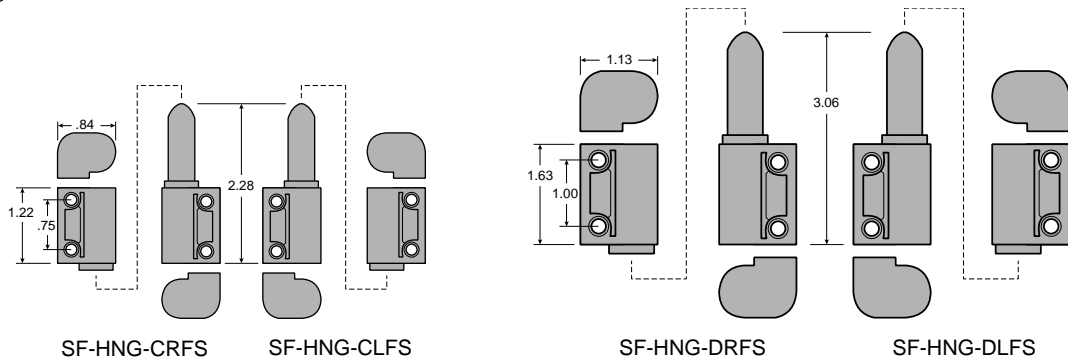
	Installation Dimensions (inches)					Screw
	L	**M**	**N**	**O**	**P dia.**	thread size
SF-HNG-C	.75	.56	.75	.317	.196	10-24
SF-HNG-D	1.00	.75	1.00	.437	.265	1/4-20

Screws not included. Hinge designed for 1/8" gap between door and frame.
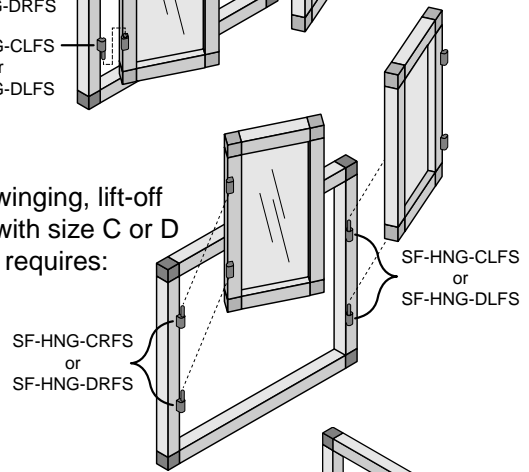
Standard Hinge
VG-635-BK
Made of reinforced, black
polyamide. Use for swinging
doors and panels. Designed
for 1/4" gap between door and
frame. Fasteners not included.
Requires #10 screw.

180

45

.75   .42 .50

1.22

1.20   1.90

.24
thru hole   1.90
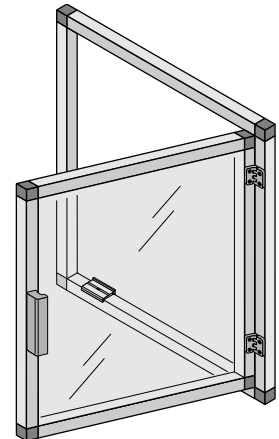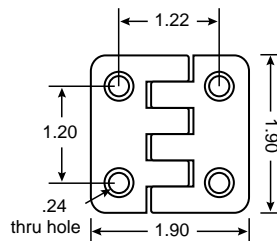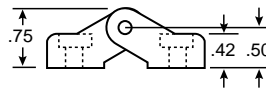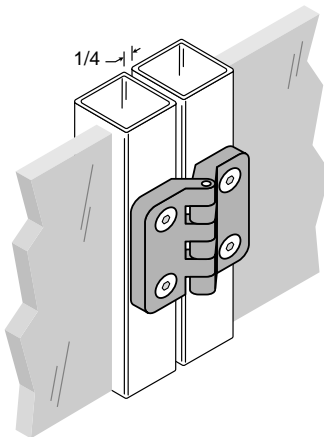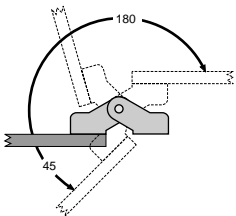
Frameless Door Hardware Kit
SF-HK-BB (black)
SF-HK-BC (chrome)
Hardware kit provides all the components needed for mounting one
frameless door. Each kit includes: 2 hinges with bushings and shim
plates, 1 handle with adhesive gasket and 1 magnetic catch. Use a
1/4" thick panel cut to the recommended clearance dimensions.

Handle

Shim plates

Hinges

Adhesive gasket

Magnetic catch

Bushings

11/16" from
tube end

Insert joint and drill
11/32" dia. x 5/32" ep.

3/16" gap
recommended

3/16" gap
recommended
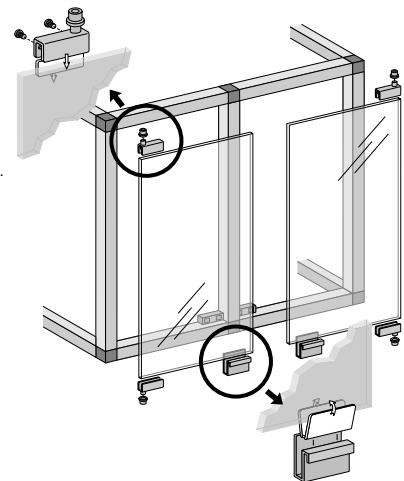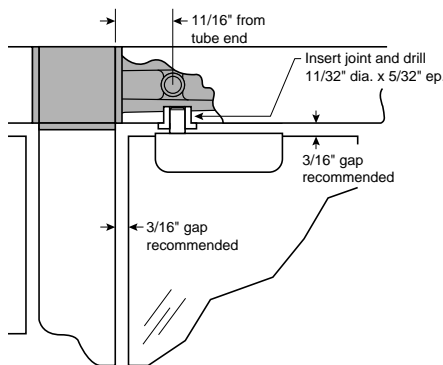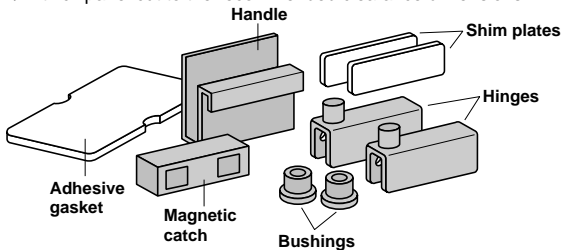
Tube Ends and Anchor Plate

Metal Tube End
SF-ECM
Zinc plated steel cap or foot for load bearing structures. Maximum static load is 500 lbs.
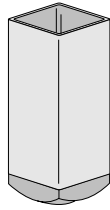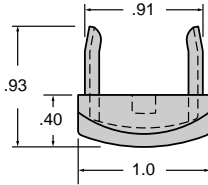
Plastic Tube End
SF-ECP
Black polyethylene cap or foot for lightweight structures. Maximum static load is 100 lbs.
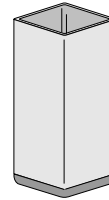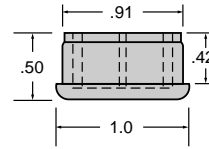
Threaded Tube End
SF-ECT-38
Plated steel tube end with 3/8-16" internal threads. Maximum static load is 100 lbs.
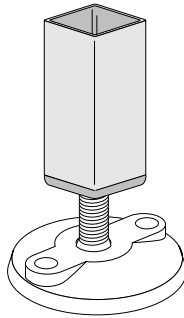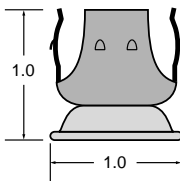
Anchor Plate
SF-AP-2

NEW

Black powder coated steel plate that connects to SpeedFrame tubing. When assembled to a tube, they provide a simple, rigid method for attaching frame structures to horizontal and vertical surfaces. Fasteners not included.
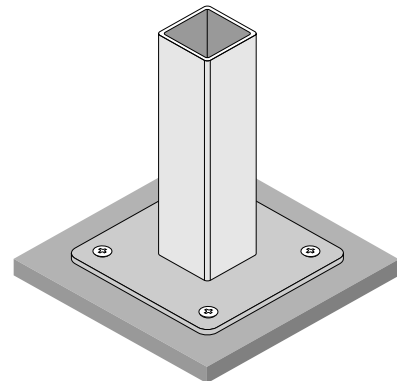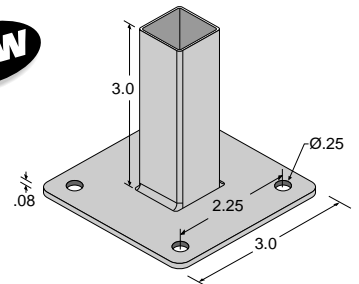
Drive Screw
SF-DS
Zinc plated screw makes joint connections resistant to pull out due to excessive loads or vibration. Screw is driven into a .16" dia. drilled hole with a hammer.
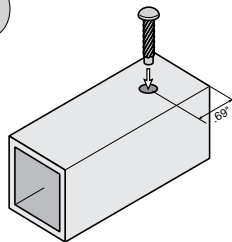
Drill Jig
SF-DJ
Locates drill holes for hinge pins through the tube and into the joint in one easy operation, eliminating the need to pre-punch or mark the tube.

SpeedFrame

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The guarding on this machine is unsightly and a potential safety hazard. New machines or retrofit applications can benefit from Valu Guard enclosure systems.
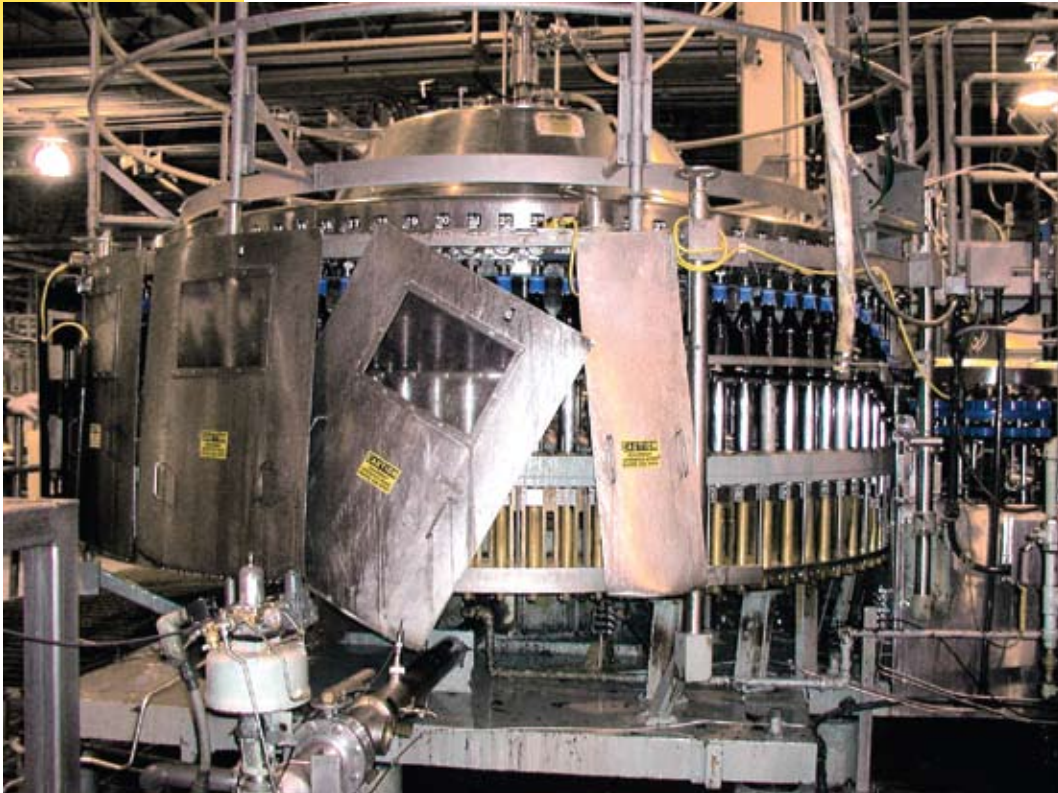
Valu Guard products give this machine a new, beautiful appearance with greater visibility and accessibility. Large or small, Valu Guard can add safety and cleanliness to your next project.
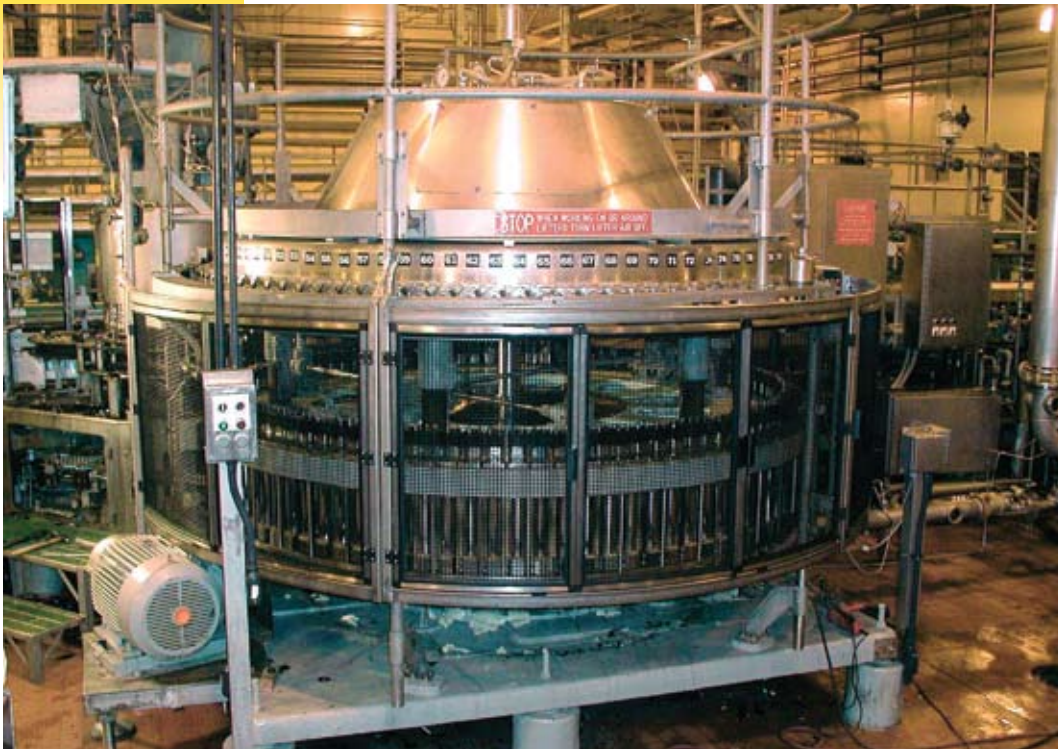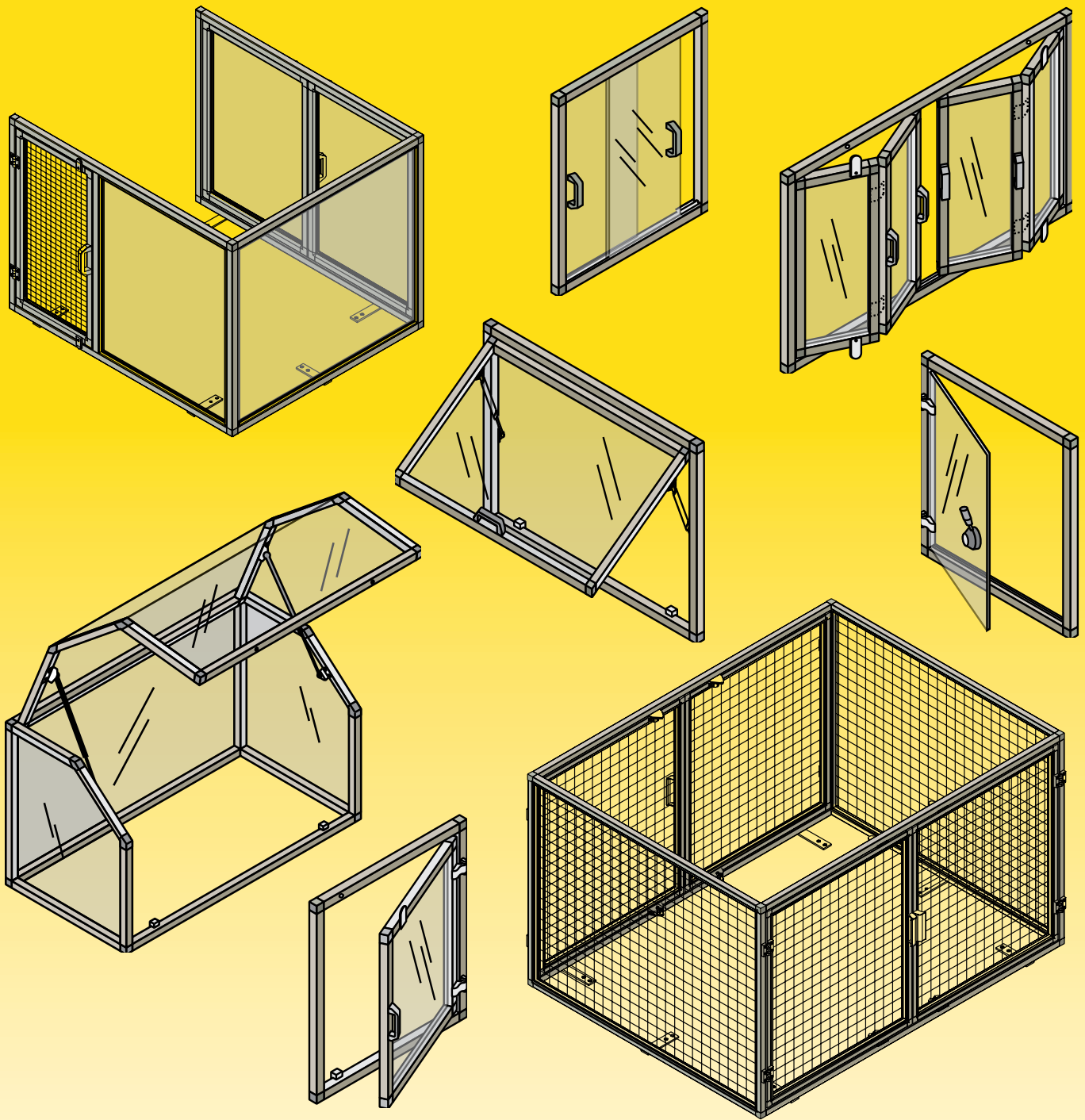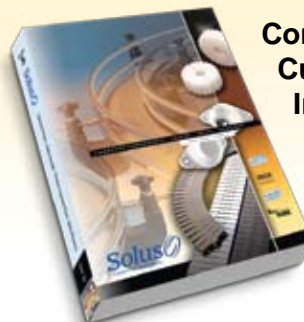
VALU GUARD ™

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