



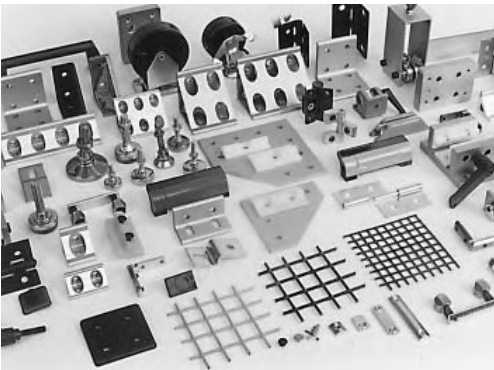
Bulk Profiles

- Standard 8', 12', 16', 20' lengths. (other lengths can be furnished in quantity)
- Available in standard and **SMOOTH-Series** (slotless) and **BLACK** anodized designs
- 1/4" and 5/16" slot sizes
- Standard anodized or optional powder coat finishes
- Skidded, wrapped, padded and banded for shipping



Cut/Machined Profiles

- Extrusions cut to specified lengths (including miter cuts)
- Custom machining available: drilled holes, tapped holes, counter bores, milling, etc.



Components & Accessories

- Wide range of brackets, joining plates, gussets, fasteners, handles, end caps, angles, panel material, bolts, etc.
- Special hinges for ultra-strong doors
- Custom accessories available

Kits & I.D. Kits

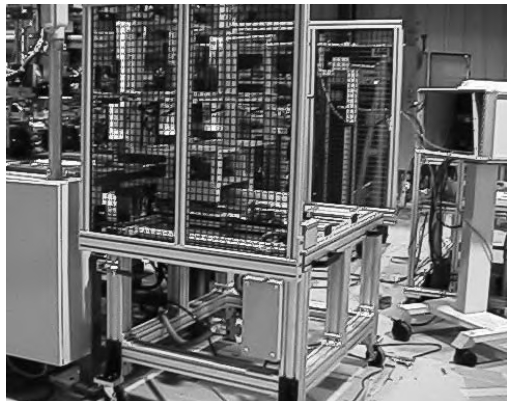
- **Kits** for multiple frame orders, profiles and accessories are bundled and packaged for each individual frame
- **I.D. Kits** indicate lengths on each extrusion (eliminates profile measuring during assembly)
- Saves you time, money and labor

**FastFrames
Pre-engineered
Modules and
Sub Assemblies**

- Includes panels, doors, bases, carts
- All necessary hardware is included
- Available assembled or in kit form
- Greatly simplifies design, ordering and assembly
- Single part number ordering

**Complete Solutions**

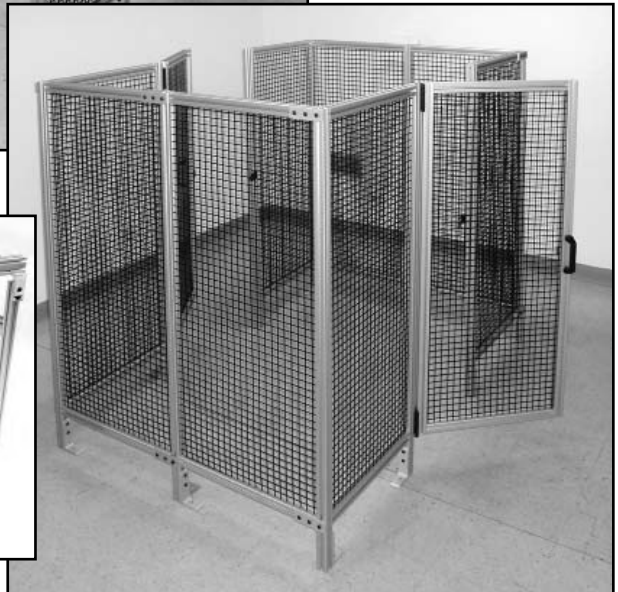
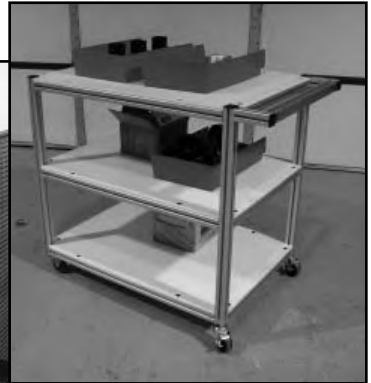
- Complete turnkey solutions for machine guards, bases, frames, enclosures, racks, workstations & more
- Tremendous labor (cost) savings
- The simplest solution available



FastFrames

The fastest and easiest way to develop frames, machine guards, enclosures, carts and conveyor systems.

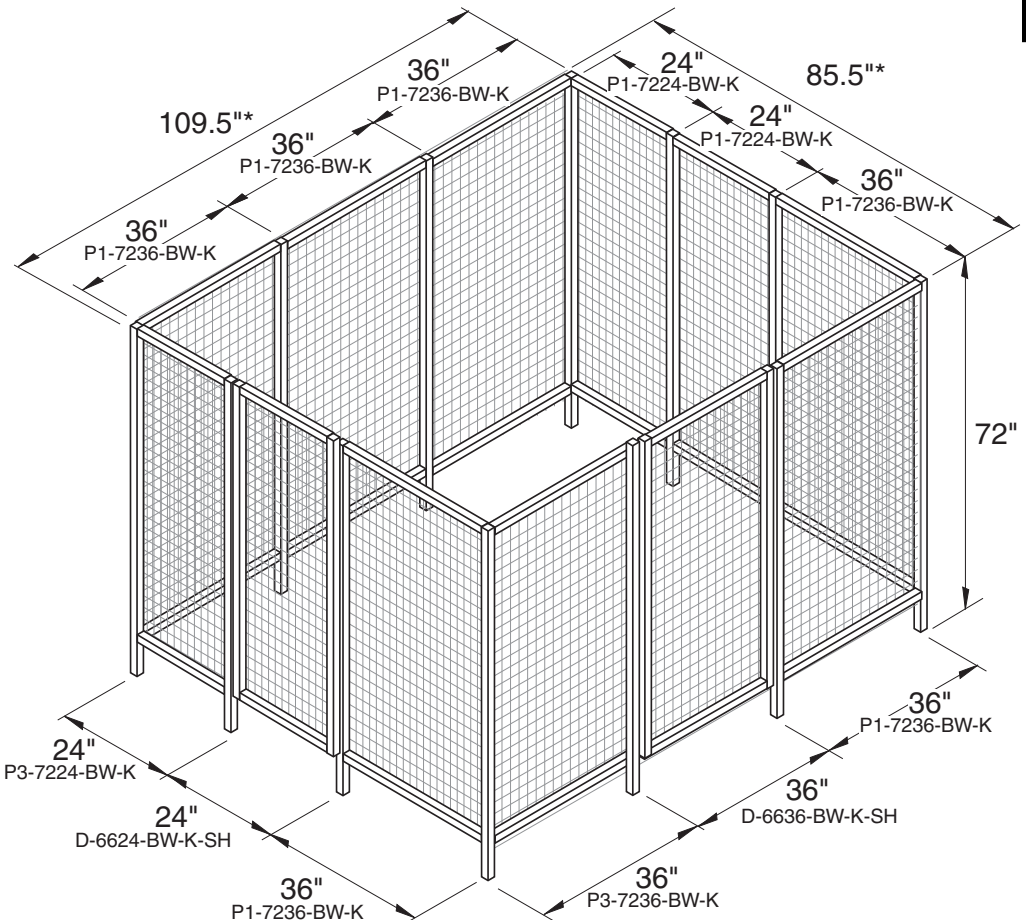
- Order panels, doors, carts, bases and conveyors with a single part number!
- Each is available pre-assembled or in kit form
- All necessary hardware is included



FastFrames

Example

Build this entire safety enclosure with only 12 ordered parts, instead of 567 individual components.



Bill of Material

- | | |
|--------------------|------------------|
| (1) D-6636-BW-K-SH | 36" Opening Door |
| (1) D-6624-BW-K-SH | 24" Opening Door |
| (1) P3-7236-BW-K | 36" Panel |
| (1) P3-7224-BW-K | 24" Panel |
| (6) P1-7236-BW-K | 36" Panel |
| (2) P1-7224-BW-K | 24" Panel |

These dimensions achieved using standard sized panels.

If desired enclosure height, width or depth cannot be achieved with standard sized panels, FRAME-WORLD can add additional panels and adjust the sizing to do so.

Please contact your distributor or the factory for custom sizes.

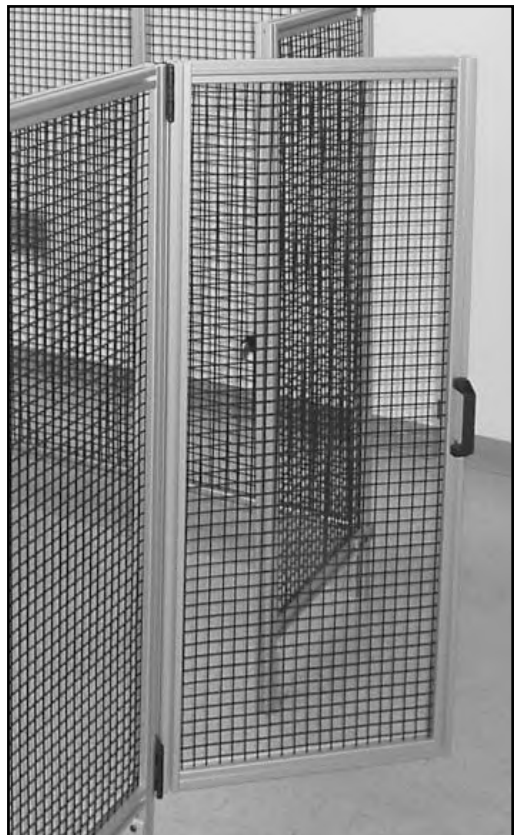
Standard Enclosure Panels

- **FastFrames** standard enclosure panels can be purchased pre-assembled or in kit form.
- Frame construction:
 - Panels**
 - Extrusion frame is EX-6 (page 30) .
 - Corner fasteners are EF-29A universal connectors (page 112).
 - Floor mounting brackets are EB-15AL (page 182).
- Inside panel construction options:
 - 2" x 2" black PVC coated wire mesh is EB-38-2 (page 190)
 - 1" x 1" black PVC coated wire mesh is EB-38-1 (page 190).
 - 1" x 1" yellow PVC coated wire mesh is EB-38-1Y (page 190).
 - 1/4" thick clear polycarb is EB-160 (page 197).
 - Wire mesh brackets are EB-49B/EB49Y (page 193).
 - Gasket is EB-40A (page 207).
- Standard panel widths are 18", 24", 30", 36", 48".
- Standard panel heights are 40", 60", 72" & 84".
- Panel to panel connecting brackets EB-33 (page 134) and hardware are included.
- Floor anchors are furnished and installed by customer.
- **SMOOTH Series** & **BLACK** extrusion panels are available.
- **Custom sizes available**

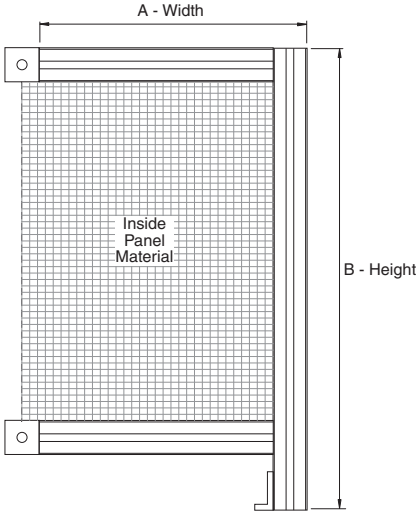


Standard Enclosure Doors

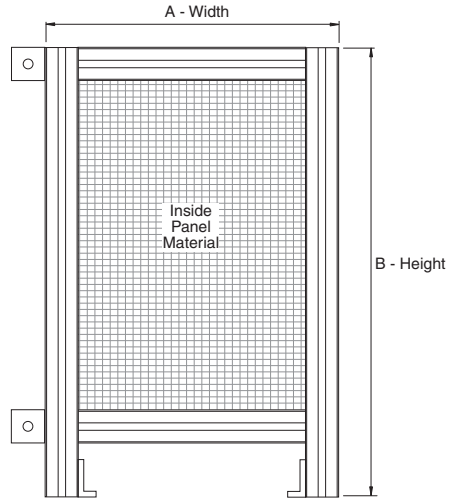
- **FastFrames** standard doors can be purchased pre-assembled or in kit form.
- Frame construction:
 - **Doors**
 - Extrusion frame is EX-6 (page 30).
 - Corner connectors are EF-29A (page 112).
 - Hinges are EF-70 (page 226).
 - Handle is EF-15B (page 237).
 - Latch is EF-22HD (page 254).
- Inside panel construction options:
 - 2" x 2" black PVC coated wire mesh is EB-38-2 (page 190)
 - 1" x 1" black PVC coated wire mesh is EB-38-1 (page 190).
 - 1" x 1" yellow PVC coated wire mesh is EB-38-1Y (page 190).
 - 1/4" thick lear polycarb is EB-160 (page 197).
 - Wire mesh brackets are EB-49B/EB49Y (page 193).
 - Gasket is EB-40A (page 207).
- Standard door widths are to fit 24", 30", 36" & 48" opening.
- Standard door heights are 34", 54", 66", & 78".
- **SMOOTH Series & BLACK** extrusion panels are available.
- **Custom sizes available**



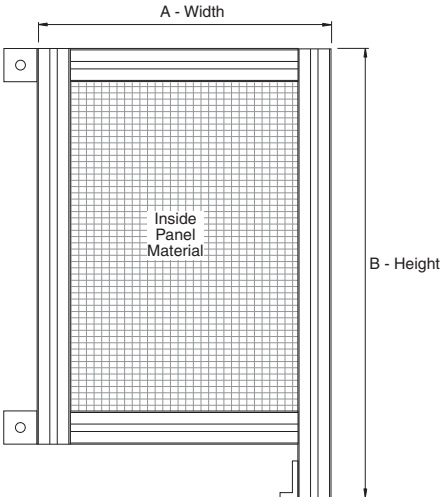
Standard Enclosure Panels



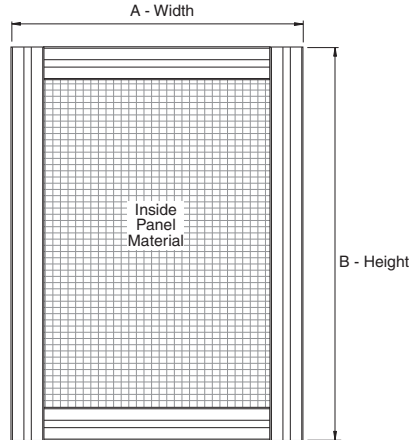
**Standard (1) Leg Panel
Model P1**



**Standard (2) Leg Panel
Model P3**



**Standard (1) Leg Panel
Model P2**



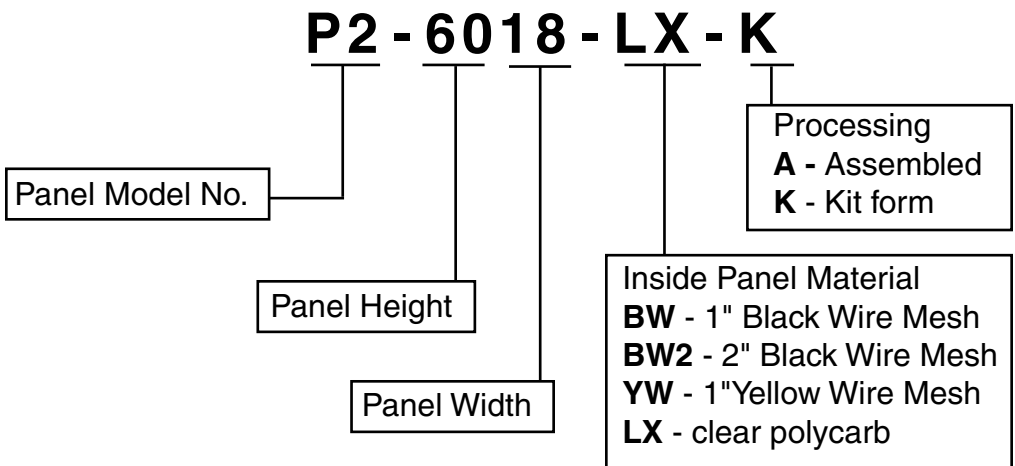
**Standard Basic Panel
Model P4**

Note: Mounting Hardware Not Included

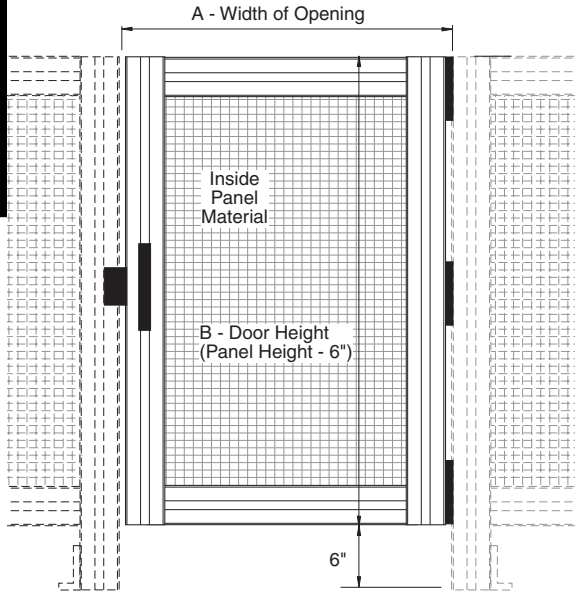
Standard Enclosure Panels

- Standard panel heights are 40", 60", 72" & 84".
- Standard panel widths are 18", 24", 30", 36" & 48".
- **SMOOTH Series** & **BLACK** extrusion panels are available.
- **Custom sizes available** - consult the factory

Panel Ordering Example



Standard Enclosure Doors

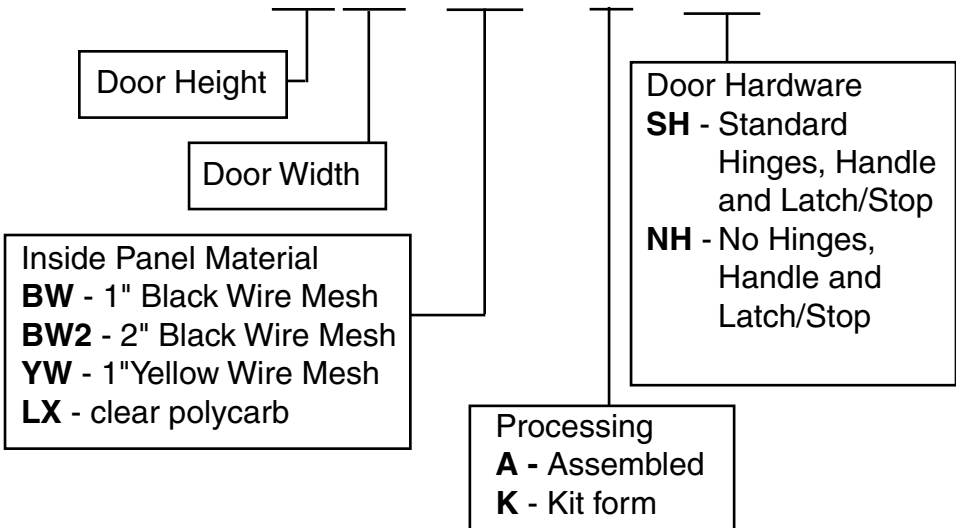


- Standard door heights are 30", 34", 54", 66", & 78".
- Standard door widths are 24", 30, 36" & 48" opening.
- **SMOOTH Series & BLACK** extrusion panels are available.
- **Custom sizes are available** - consult the factory

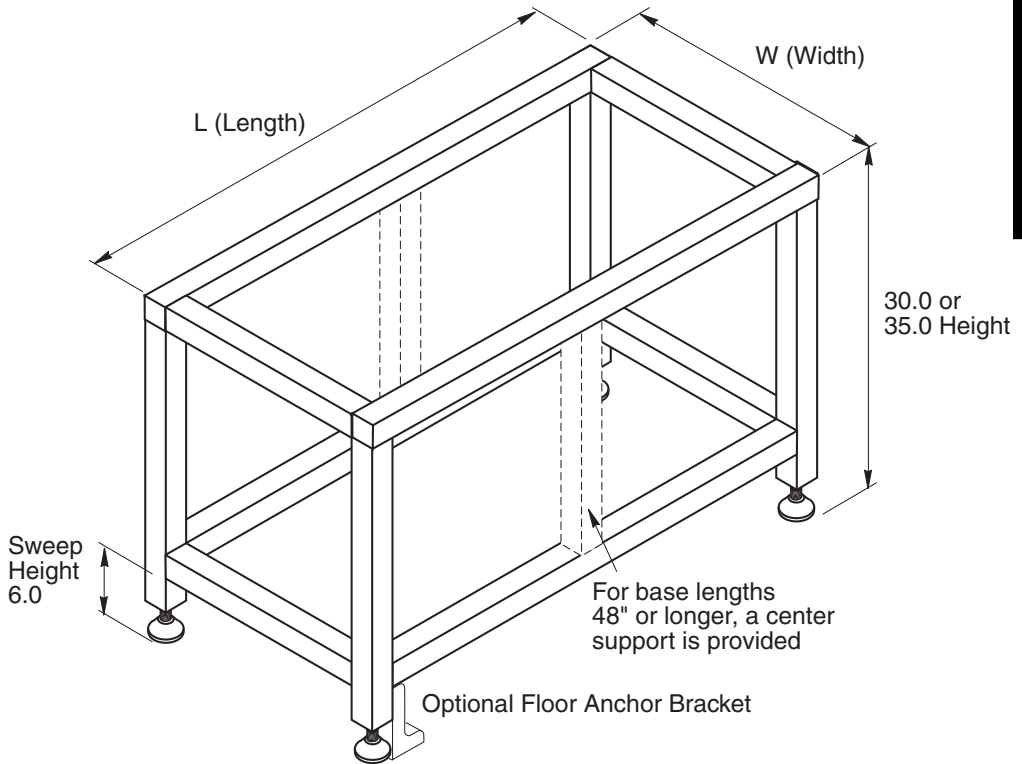
Note: Part Nos. D-5436, D-6636, & D-7836 have a center extrusion bar.

Door Ordering Example

D- 6624 -BW -A - SH



Standard Bases and Tables



- Available in kit form or assembled
- Includes adjustable legs
- Floor Anchor Brackets available on request
- Choice of Light, Standard or Heavy Duty
- Standard Heights of 30" or 35"
- Tops and enclosure panels available on request - consult factory
- Sweep height = 6.00"
- Light Duty is EX-1
- Standard Duty is EX-2
- Heavy Duty is EX-3
- **Custom sizes available**

Model L Light Duty

Length (L)	Width (W)			Max Load
	24"	30"	36"	
36"	L-3624	L-3630	L-3636	400
48"	L-4824	L-4830	L-4836	360
60"	L-6024	L-6030	L-6036	300
72"	L-7224	L-7230	L-7236	240

Model S Standard Duty

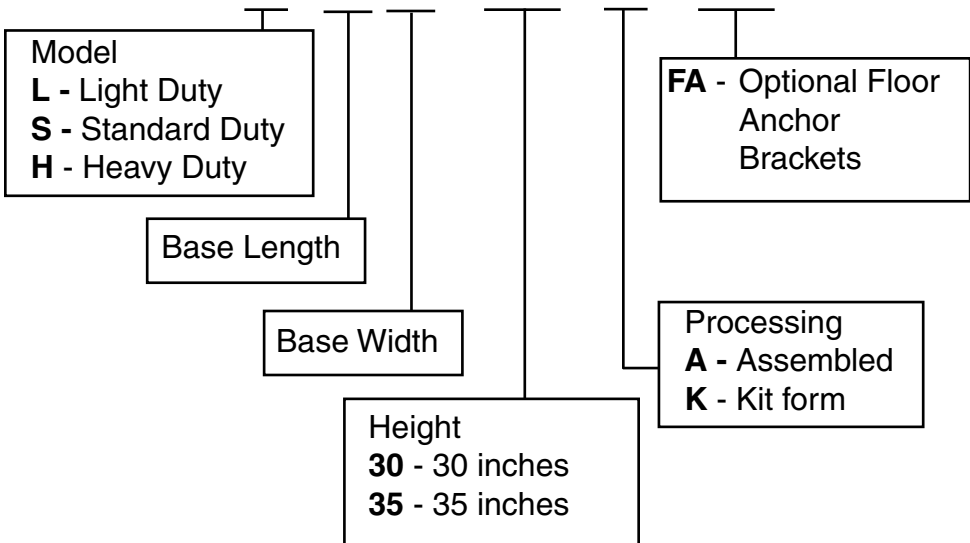
Length (L)	Width (W)			Max Load
	24"	30"	36"	
36"	S-3624	S-3630	S-3636	2800
48"	S-4824	S-4830	S-4836	2000
60"	S-6024	S-6030	S-6036	1720
72"	S-7224	S-7230	S-7236	1480

Model H Heavy Duty

Length (L)	Width (W)			Max Load
	24"	30"	36"	
36"	H-3624	H-3630	H-3636	5400
48"	H-4824	H-4830	H-4836	3800
60"	H-6024	H-6030	H-6036	3300
72"	H-7224	H-7230	H-7236	3000

Standard Base Ordering Example

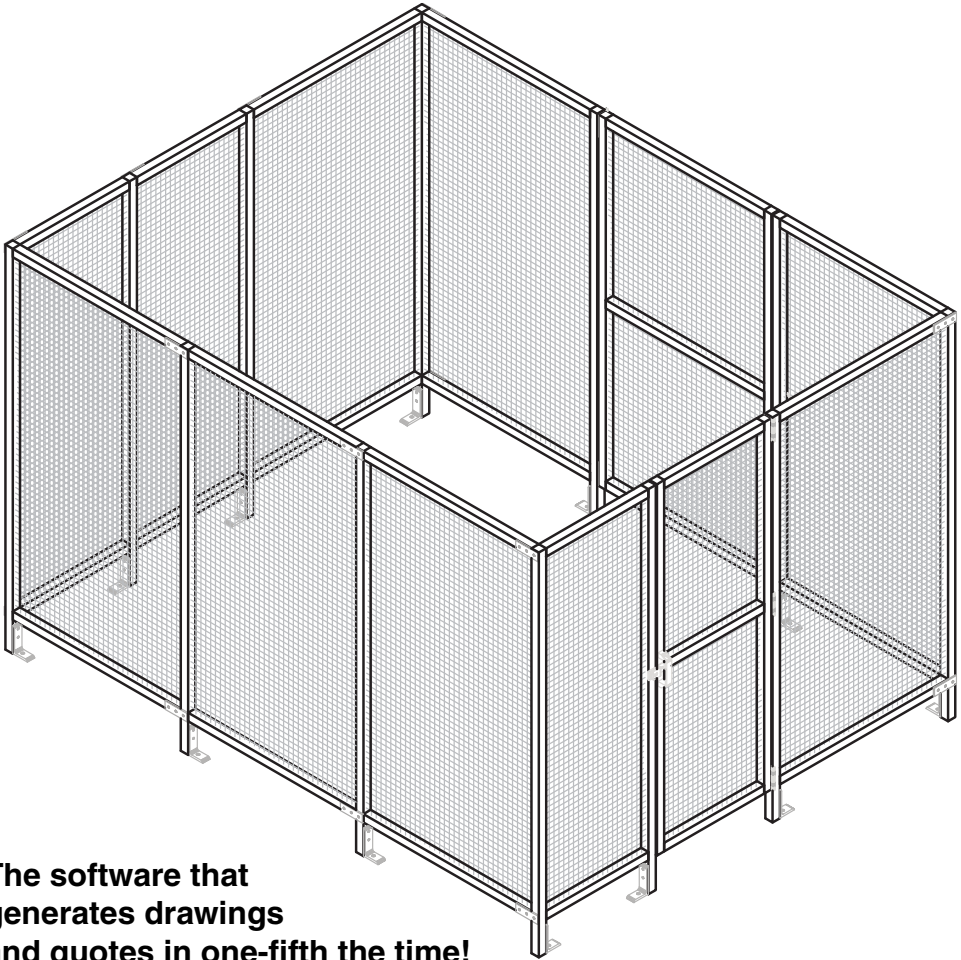
S- 4824 -30 -A - FA



Custom sizes are available - consult the factory

FrameQuoter

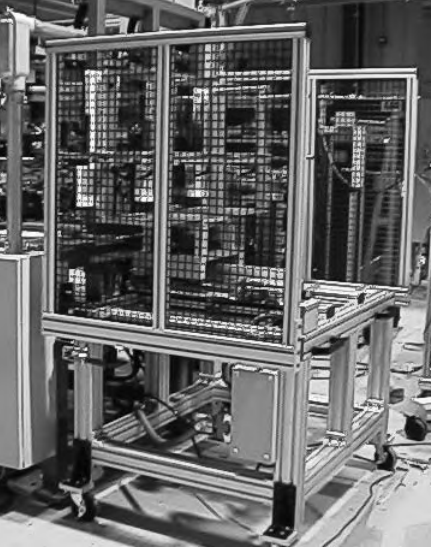
Aluminum Extrusion Design Software



The software that
generates drawings
and quotes in one-fifth the time!

FrameQuoter is the most advanced and easiest to use aluminum profile design and quote software available today! It will enable you to quickly and easily produce professional looking 3D drawings with bills of materials and quotations that are detailed and accurate, 5 times faster than doing them by hand! **FrameQuoter** will increase your efficiency and confidence.

You Can Design This Machine Guard In 2 ½ Hours...



Or In Just 14 Minutes.

Try Our **FREE Design Software And See For Yourself.**

Designing a machine guard, frame or enclosure can be a very time-consuming and frustrating experience. Any errors, omissions or miscalculations can result in a structure which is cumbersome to use, doesn't fit the application, or is totally useless. Our **FrameQuoter** design software eliminates these problems, and helps you create the ideal structure, quickly and easily.

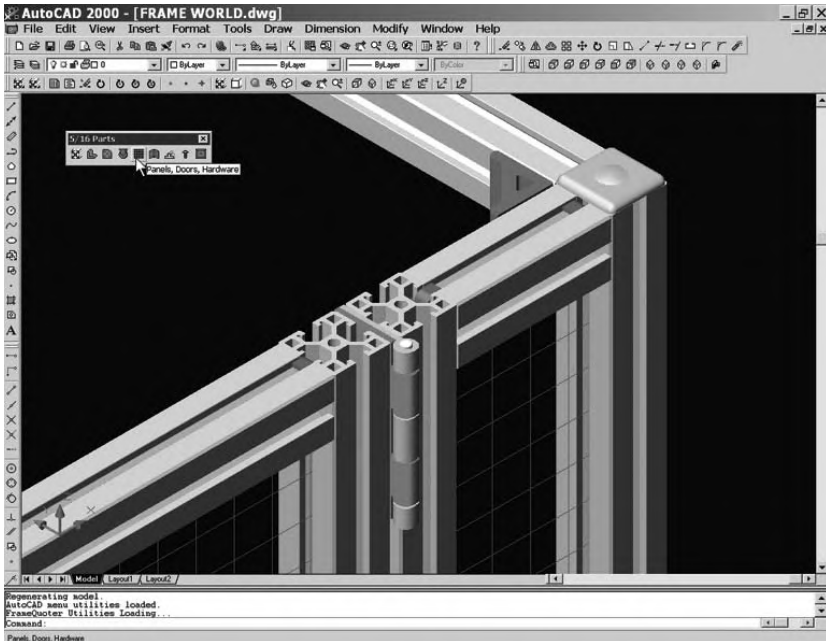
FrameQuoter Software Decreases Design Time By Up To 92% And Eliminates Errors, Omissions and Hassles

Actual field studies have shown that our **FrameQuoter** design software will drastically reduce the amount of time required to design a machine guard or frame. And because we have simplified and/or automated many functions ("snap-in-place" corner brackets, automatically includes necessary machining, nuts, bolts, etc.), you will have less errors, mistakes or hassles. You can be assured that every structure you design will be right the first time, every time.

Easy To Learn, Easy To Use

This was the #1 design criteria. With even a basic knowledge of AutoCAD, you will quickly master **FrameQuoter**. We have shortened and/or eliminated many of the steps necessary with other design software packages by using simple icons and drop-down menus. A complete Bill of Materials is also only one mouse click away.

Incredible Life-Like Full-Color Graphics



FrameQuoter is the only design software package that enables you to develop wireframe, hidden and shaded drawings in 2D and 3D, in both simplified and detailed views. The “Detailed-Shaded” view shows you the final assembly with incredible detail & clarity:

The Possibilities Are Endless

If you can build it with aluminum extrusions, you can design it with **FrameQuoter**. People have designed wall racks, workstations, tables, machine bases, machining stations, clean room enclosures, tool fixtures, and much more. Unlike other design packages, **FrameQuoter** enables you to employ every FRAME-WORLD extrusion, and every bracket and accessory into any drawing. You can even add non-FRAME-WORLD parts to the Bill of Materials!

Solidworks Library Available

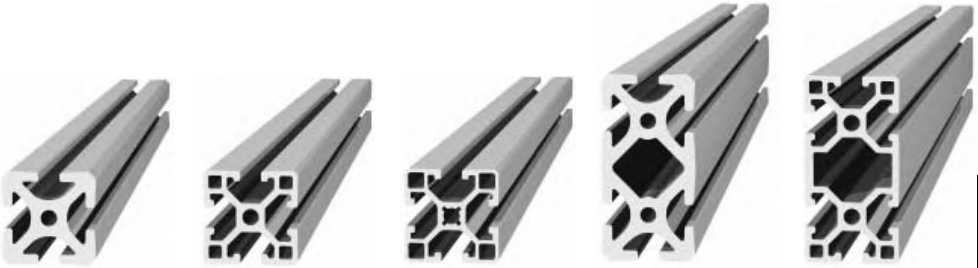
FRAME-WORLD offers a full Solidworks (TM) parasolid library of all our our products. Additional CAD formats of our part library, including .igs, .dwg, and .dxf, are also available. All CAD files are available for download at www.frame-world.com

Metric Sizes for FRAME-WORLD T-slot Extrusions and Accessories

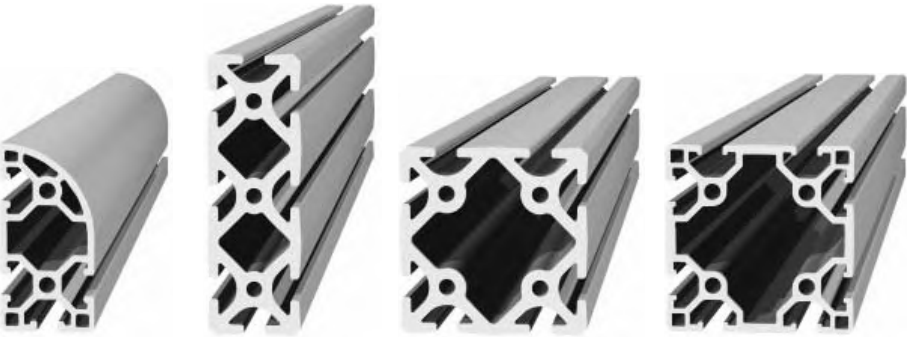


5/16" SLOTS

Part No.	Extrusion Size		Fastener Size	
	Inches	Nearest Metric	Inches	Metric
EX-1, BLX-1	1.5" x 1.5"	38 x 38 mm	5/16-18	m8
EX-2, BLX-2	1.5" x 3"	38 x 76 mm	5/16-18	m8
EX-3, BLX-3	3" x 3"	76 x 76 mm	5/16-18	m8
EX-6, BLX-6	1.5" x 1.5"	38 x 38 mm	5/16-18	m8
EX-7	1.5" corner	38 x 38 mm	5/16-18	m8
EX-8	1.5" round	38 x 38 mm	5/16-18	m8
EX-9, BLX-9	1.5" x 1.5"	38 x 38 mm	5/16-18	m8
EX-11, BLX-11	1" x 1"	25 x 25 mm	1/4-20	m6
EX-12, BLX-12	1" x 2"	25 x 50 mm	1/4-20	m6
EX-13	1" x 3"	25 x 76 mm	1/4-20	m6
EX-22, BLX-22	2" x 2"	50 x 50 mm	1/4-20	m6
EX-24	2.0" x 4.0"	50 x 100 mm	1/4-20	m6
EX-26	1.5" x 4.5"	38 x 174 mm	5/16-18	m8
EX-36	3" x 6"	76 x 152 mm	5/16-18	m8
EX-37	3.0" x 3.0"	76 x 76 mm	5/16-18	m8
EX-45HD	4.5" x 4.5"	114 x 114 mm	5/16-18	m8
EX-52	1" x 1.5"	25 x 38 mm	5/16-18	m8
EX-54	1" x 1.5"	25 x 38 mm	5/16-18	m8
EX-60	2.38" x 2.38"	60 x 60 mm	5/16-18	m8
EX-61	1.5" x 1.5"	38 x 38 mm	5/16-18	m8
EX-63	1.5" x 1.5"	38 x 38 mm	5/16-18	m8
EX-64	1.5" x 1.5"	38 x 38 mm	5/16-18	m8
EX-65	1.5" x 1.5"	38 x 38 mm	5/16-18	m8
EX-66	1.5" x 3"	38 x 76 mm	5/16-18	m8
EX-67, BLX-67	1.5" x 3"	38 x 76 mm	5/16-18	m8
EX-68	1.5" x 3"	38 x 76 mm	5/16-18	m8
EX-69	1.5" x 3"	38 x 76 mm	5/16-18	m8
EX-70	1" x 1"	25 x 25 mm	1/4-20	m6
EX-71	1" x 1"	25 x 25 mm	1/4-20	m6
EX-72	1" x 1"	25 x 25 mm	1/4-20	m6
EX-73	1" x 1"	25 x 25 mm	1/4-20	m6
EX-82	1.5" angle	38 x 38 mm	5/16-18	m8
EX-83	1.5" x 3.0"	38 x 76 mm	5/16-18	m8



EX-1 1.5" x 1.5" **EX-6** 1.5" x 1.5" **EX-9** 1.5" x 1.5" **EX-2** 1.5" x 3.0" **EX-67** 1.5" x 3.0"



EX-83 1.5" x 3.0" **EX-26** 1.5" x 4.5" **EX-3** 3.0" x 3.0" **EX-37** 3.0" x 3.0"



EX-36 3.0" x 6.0" **EX-45HD** 4.5" x 4.5" **EX-60** 2.38" x 2.38"

5/16" SLOTS

SMOOTH-Series

5/16" SLOTS



EX-63
1.5" x 1.5"



EX-64
1.5" x 1.5"



EX-65
1.5" x 1.5"



EX-61
1.5" x 1.5"



EX-7
1.5" x 1.5"



EX-8
1.5" x 1.5"



EX-68
1.5" x 3.0"



EX-66
1.5" x 3.0"



EX-69
1.5" x 3.0"



EX-52
1.0" x 1.5"



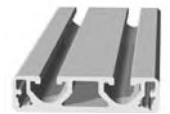
EX-54
1.0" x 1.5"



EX-82
1.5" x 1.5"
45 deg.



EX-81
1.75" x 2.0"



EX-57
.75" x 3.0"

BLACK-Series



BLX-1
1.5" x 1.5"



BLX-6
1.5" x 1.5"



BLX-9
1.5" x 1.5"



BLX-2
1.5" x 3.0"



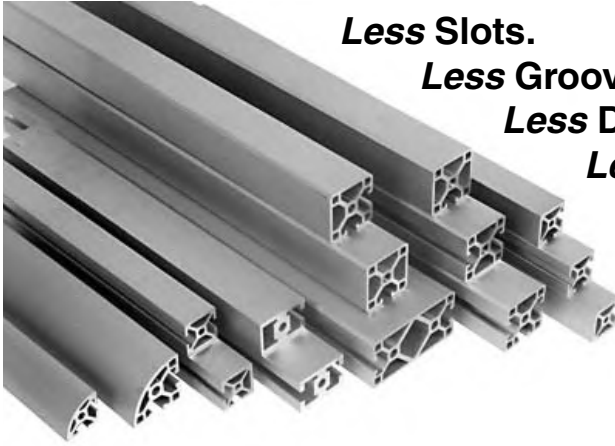
BLX-67
1.5" x 3.0"



BLX-3
3.0" x 3.0"

5/16" SLOTS

SMOOTH-Series Aluminum Profiles Give You *Less*:



Less Slots.

Less Grooves.

Less Dirt.

Less Germs.

Less Maintenance.

***And Less
Headaches.***

For Less Money.

Aluminum extrusions are the ideal choice when building protective machine guards, machine frames or enclosures for any industrial environment. Unfortunately, traditional aluminum profiles are also a breeding ground for dirt, oil, grease, mold, mildew, germs and bacteria to accumulate and grow. They have up to 22 places to hide (3 exposed T-slots and 19 grooves, per length of extrusion). This makes maintenance and cleaning difficult, ongoing and very expensive. Health and safety issues are a huge concern.

How do you stop the maintenance nightmare? Our **SMOOTH-Series** profiles eliminate all the dirt catching grooves, and provide you only the number of T-slots required for your assembly. The **SMOOTH surfaces** wipe clean easily, without the toothbrush-scrubbing, knuckle-breaking cleaning required for exposed slots and grooves. Dirt, germs and other contaminants don't have a place to hide.



Traditional Aluminum
Extrusion
4 Slots & 16 Grooves



FRAME-WORLD's
SMOOTH-Series
1 Slot, NO Grooves

Suitable for clean rooms, tough enough for steel mills
SMOOTH-Series profiles are ideal for any manufacturing facility where dirt, germs, mold, mildew and bacteria build-up can result in critical health and safety issues:

- Clean Rooms
- Food & Beverage
- Packaging
- Pharmaceutical
- Medical and Biotechnology
- Electronics

The same *SMOOTH-Series* profiles can also withstand harsh industrial environments where dirt, oil, grease and chemicals are a daily fact of life.

In stock and available for immediate delivery.

All models and versions are available for same-day shipment. For your convenience, *SMOOTH-Series* profiles are also available as kits, engineered sub-assemblies, or as complete turnkey solutions (machine guards, frames, enclosures, etc.).



FRAME-WORLD can provide you with a kit that is ready to assemble. We will provide machining services such as access holes, taps, cuts and counterbores. We can also provide miter cuts and any special milling, drilling or tapping requirements that you may have.

In addition to the items within this catalog, FRAME-WORLD can also provide panels cut to size. Materials can be Acrylic (Plexiglass®), Polycarbonate (Lexan®) expanded PVC (Sintra®) or ABS (Haircell). This also includes any drilling, tapping or machining required for panel mounting.

Customized packaging is also available, such as kits for multiple quantities of the same item (i.e. frame, fixture, panel, etc.) or labeling individual components of one item.

For all special services and for any parts not shown in this catalog, please contact our Application Group.

Standard Machining Services

1. Cut to length 5/16" or 1/4" slot profiles
 - Any profile shape (except EX-45HD)
 - Length tolerance = +.015"
 - Squareness = .002" per inch

Part No.

EM-1

2. Cut to length EX-45HD
 - Length tolerance = +.030"
 - Squareness = .005" per inch

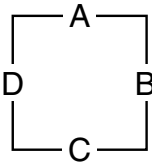
EM-1-EX45

3. End hole tap
 - A. 5/16" slot profiles
 - 5/16"-18 x 1.0 deep thread
 - .260 dia. extruded hole size
 - m8 x 1.25 on request
 - B. 1/4" slot profiles
 - 1/4"-20 x .75 deep thread
 - .201 dia. extruded hole size
 - m6 x 1.0 on request

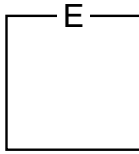
EM-2

EM-2

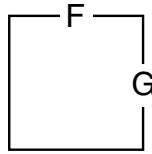
4. T-slot identification



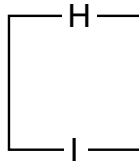
**EX-1
EX-6
EX-9
EX-11**



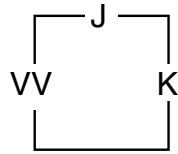
**EX-21
EX-52
EX-61
EX-70
EX-81**



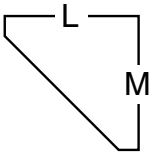
**EX-65
EX-72**



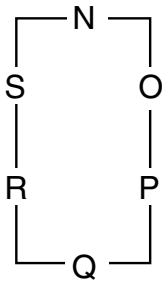
**EX-54
EX-64
EX-71**



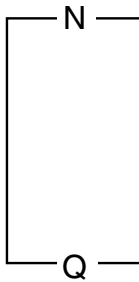
**EX-63
EX-73**



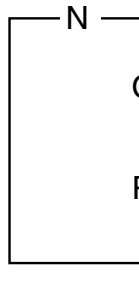
**EX-7
EX-8
EX-14
EX-23
EX-82**



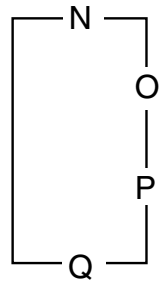
**EX-2
EX-12
EX-67**



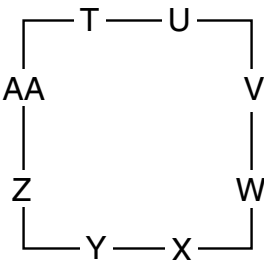
EX-68



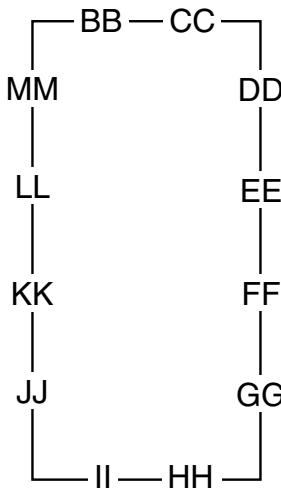
EX-66



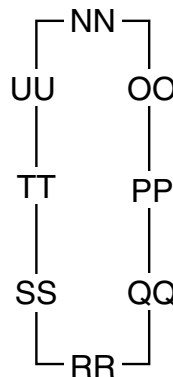
**EX-28
EX-57
EX-69**



**EX-3
EX-22
EX-37**



**EX-24
EX-36**



EX-26

Part No.

5. Access Hole Drill

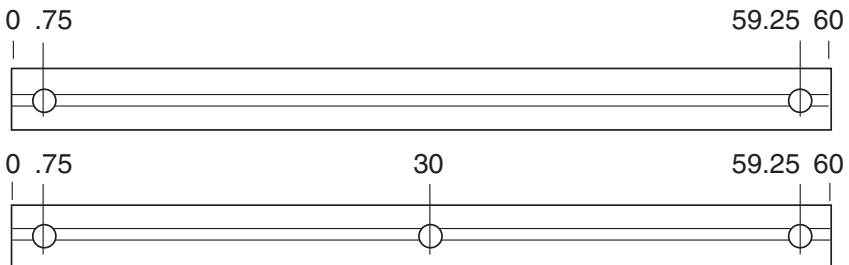
- A. For 5/16" wide slot profiles
the drill dia. = .31"
all the way through
- B. For 1/4" wide slot profiles
the drill dia. = .25"
all the way through.

EM-3

EM-3

Example:

(2) pcs EX-1 x 60.0" with EM-3's on A & B at .75 from each end and on B at 30.0"



Total EM-1 cuts = 2
Total EM-3 Drills = 10

6. C'bore or C'sink Hole Drill

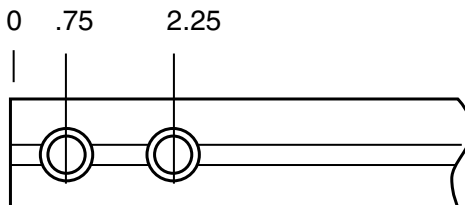
EM-3C

Specify type and location for a countersink hole in a panel or extrusion.

Example:

For a panel: Drill and C'sink for 5/16-18 FHCS per dwg (must submit sketch of panel)

For an extrusion: Drill and C'bore for 5/16-18 SHCS slot [A] @ 0.75, 2.25 from end.

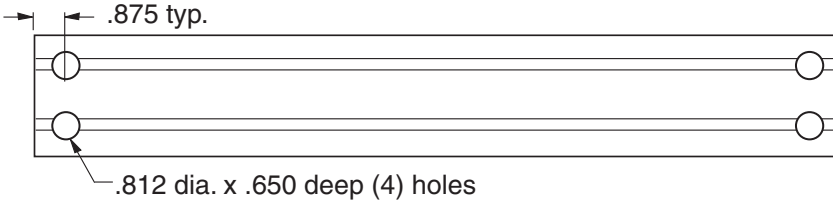


Part No.

7. Anchor Fastener Counter Bores

- A. For 5/16" slot profiles the counterbore
dia. = .812 x .650 deep
location is .875 from the end

EM-5

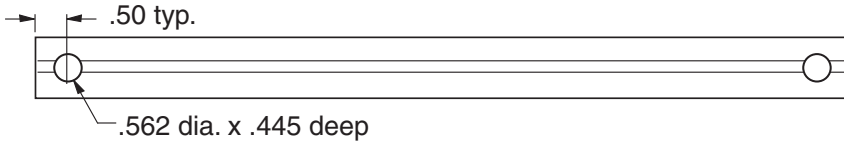


Example

- (2) EX-2 x 30.0" with EM-5's at O & P both ends
Total EM-1 cuts = 2
Total EM-5 counterbores = 8
Total EF-62 anchor fasteners = 8

- B. For 1/4" slot profiles the counterbore
dia. = .562 x .445 deep
location is .500 from the end

EM-7



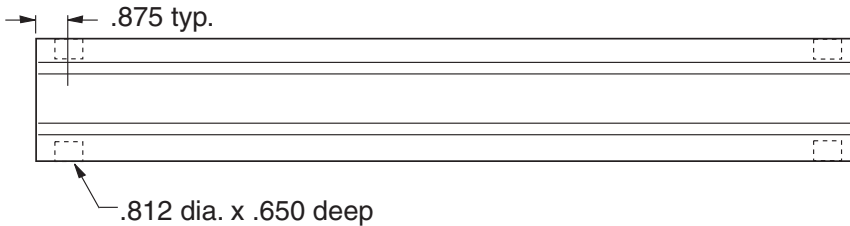
Example

- (2) EX-12 x 50.0" with EM-7's at N & Q both ends
Total EM-1 cuts = 2
Total EM-7 counterbores = 8
Total 11-242 anchor fasteners = 8

Part No.

- C. For 5/16" slot profiles using double anchor fasteners EF-63 & EF-64 the counterbore dia. = .812 x .650 location is .875 from the end

EM-5

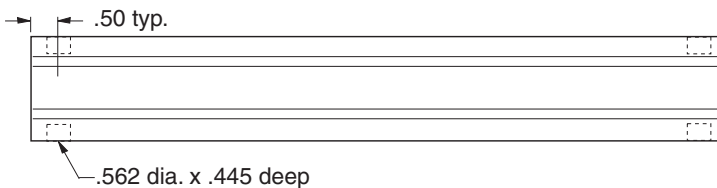


Example

- (2) EX-2 x 30.0" with EM-5's at N & Q both ends
 Total EM-1 cuts = 2
 Total EM-5 counterbores = 8
 Total EF-64 anchor fasteners = 4

- D. For 1/4" slot profiles using double anchor fasteners 11-248 & 11-249, the counterbore dia. = .562 x .445 deep location is .500 from the end

EM-7

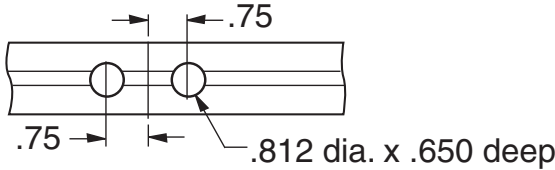


Example

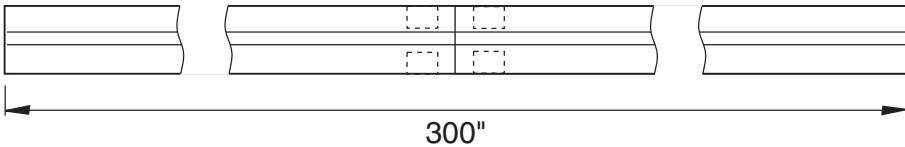
- (2) EX-12 x 20.0" with EM-7's at N & Q both ends
 Total EM-1 cuts = 2
 Total EM-7 counterbores = 8
 Total 11-249 anchor fasteners = 4

8. Anchor Butt Fastener Counterbores

- A. For 5/16" wide slot profiles the counterbore dia. = .812 x .650 deep. Location is .75 from the end

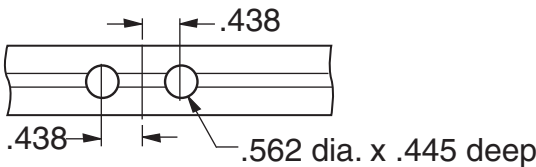


Example: (for a 300" long piece)

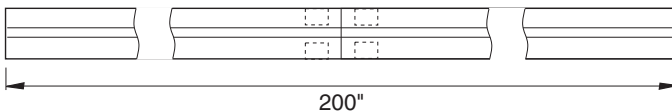


- (2) EX-1 x 150.0
- (2) EM-1
- (4) EM-8
- (2) EF-61

- B. For 1/4" wide slot profiles the counterbore dia. = .562 x .445 deep. Location is .438 from the end



Example: (for a 200" long piece)



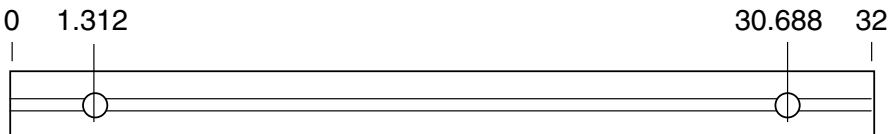
- (2) EX-11 x 100.0
- (2) EM-1
- (4) EM-9
- (2) 11-243

**Part No.
EM-13****9. Set Screw Anchor Fastener Counterbore**

For 5/16" wide slot profiles using and EF-49 fastener,
an EM-13 counterbore dia = .625 dia x 1.00 deep
at a distance of 1.312" from the end of the extrusion.

Example:

EX-65 ; 32.000" ; EM-13 [F] @ 1.312, 30.688

**10. Wire Mesh and Plastic Panels Cut to Size**

Panels any side ≤ 48.0 "

Panels any side > 48.0 "

EM-4S**EM-4L**

A. Wire Mesh and Plastic Panels
are sold by the number of square feet

B. To calculate square feet,
multiply the length by width (in inches)
and then divide by 144.
Round up to nearest square foot.

C. Example:

(1) EB-38-1 that is 24" x 47"

Order:

(8) sq ft EB-38-1 (1) @ 24" x 47"

(1) EM-4S

Total Sq. Ft. = $\frac{47.0 \times 24.0}{144.0} = (8)$ sq. ft. EB-38-1

11. Clearance Hole in a Panel

EM-3P

For clearance holes drilled into panel material, include an EM-3P. Please provide a sketch.

12. Notch in Panel or Mesh

EM-4N

For notches in panels or mesh, include an EM-4N for each notch. Please provide a sketch.

13. Extrusion Mitre Cuts & Counter Bores

Miter cut per end

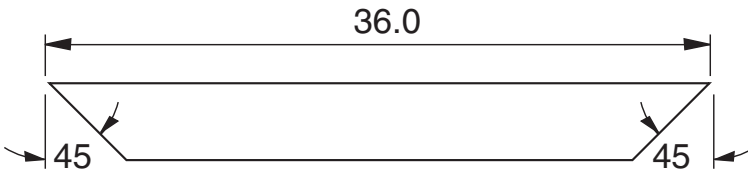
EM-6

Counter bore & hardware per end

EM-10

(1) EM-6/Cut Piece

Example:



Order:

(1) EX-1 x 36.0

(2) EM-6

(2) EM-10 (times (2) for double slot, i.e. EX-2)

Note: for custom angles, consult the factory.

When comparing all costs in the fabrication of a typical machine or table frame using FRAME-WORLD components versus steel weldments, most users realize a 15 to 25% savings. Here are the reasons, or extra steps and equipment in weldment structures:

- Welding fixtures and clamps
- Welding time
- Grinding equipment and grinding of welds
- Clean and degrease
- Drill, tapping or reaming mounting holes
- Deburr
- Primer
- Paint frame and touch up after mounting

It's easy to see the savings and esthetic effect of FRAME-WORLD.

Parts List

- 8 - EX-3-30 Extrusion
- 2 - EX-3-48 Extrusion
- 2 - EX-3-42 Extrusion
- 4 - EB-9 Angle Bracket
- 12 - EB-12 Angle Bracket
- 4 - EBP-2 Leveling Plate
- 4 - EAL Adjustable Leg
- 4 - EF-19-C Plastic End Plate
- 16 - EF-62 Anchor Fastener

