
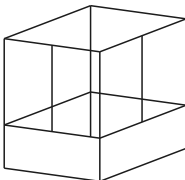
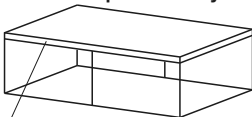


Aluminum Extrusion Design Steps

Design Support Software on P.875 can simplify and expedite the design process.

1. Determine the extrusion type used by intended equipment.

Selection of Aluminum Extrusion Frame Units Based on Applications and Extrusions Used

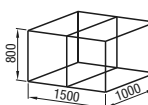
	(A) When extrusion is used as support unit	(B) As an equipment covering enclosure
		
Extrusion Selection Method	Choose a type that can withstand the load from the Load Capacity Table on P.523.	As a reference, select a type based on the maximum length of a side. 1000mm or Less ↑ HFS5: 20Sq., HFS6: 30Sq. 2000mm or Less ↑ HFS6: 30Sq., HFS8: 40Sq. 2000mm~ ↑ HFS8: 40Sq., HFS8-45: 45Sq.
Notes on Selecting Extrusions	Table on P.523 stipulates that loads are applied at the center of extrusion frames. When placing a plate on the extrusion, refer to the uniform load value in the table since the load is spread evenly. In the example from this table, the size of the box is 1 sq. m. When the extrusion size is larger, insert extra supports in the middle.  Plate	Accessories are designed considering the use of 3mm/5mm thickness plastic panels for HFS5 Series, and 5mm thickness plastic panels for HFS6 Series or upper models. (The above description may not apply depending on installation methods.)

2-A. For an equipment base

(2-A-1) Determining Outer Perimeter Configuration

Decide W, D, and H dimensions of the unit in reference to the Standard Unit configurations on P.859.

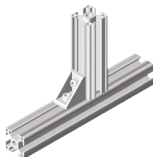

Shape and Size



(2-A-2) Selection of Connection Methods

Bracket connections and Blind Joint connections are the most frequently utilized methods.

Bracket connection is used since there is no interference problem.

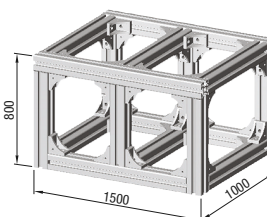
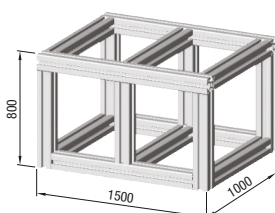
Bracket Connection		The standard and economical connection method. Cover plates can be mounted by adding taps on the brackets.
Blind Joint Connection		A connection method for clean corners. Suitable for locations where equipment is loaded and unloaded or doors are to be mounted. Provides strength equal to the brackets. However, usable extrusions are limited. Check for the compatible extrusions on Blind (See P.566, 601, 659, 705)

(2-A-3) Creation of Unit Drawing

(Ex.) Width: 1500 Depth: 1000 Height: 800mm Extrusion: HFS8-4040 Connection: Bracket Connection

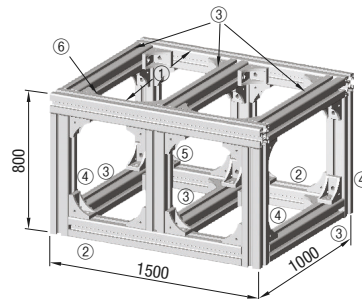
Draw Extrusion Width and Overlapping

Draw the Bracket (at all the corners) 4x11=44 pcs.



(2-A-4) Components Expanded

	Extrusion	Length	Qty.
①	HFS8 - 4040 - 1500		2
②	HFS8 - 4040 - 1420		2
③	HFS8 - 4040 - 920		6
④	HFS8 - 4040 - 760		4
⑤	HFS8 - 4040 - 720		2
	Brackets		Quantity
⑥	HBLFSN8 - SET		44
(SET: Applicable screws and nuts are included.)			



2-B. For an equipment covering enclosure

(2-B-1) Determining Outer Perimeter Configuration

Width, depth, and height determined based on the equipment to be mounted.

(2-B-2) Selection of Connection Methods

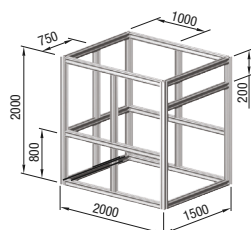
See (2-A-2) on the left-hand page for the connection methods.

Bracket connections for the panels, and Single Joint connections are selected for this example.

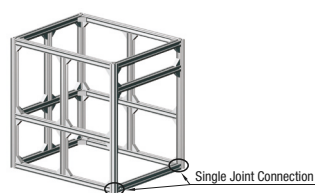
(2-B-3) Creation of Unit Drawing

(Ex.) Width: 2000 Depth: 1500 Height: 2000mm Extrusion: HFS6-3030

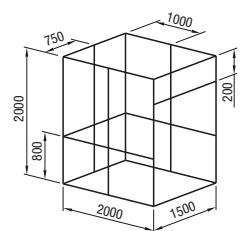
Draw Extrusion Width and Overlapping



Determine the connection method

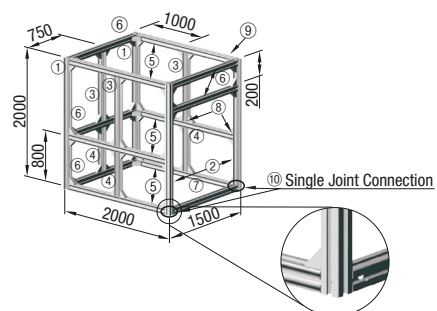


Shape and Size



(2-B-4) Components Expanded

	Extrusion	Length	Qty.
①	HFS6 - 3030 - 2000		2
②	HFS6 - 3030 - 2000 - LCH (See P.759)		2
③	HFS6 - 3030 - 1170		3
④	HFS6 - 3030 - 740		3
⑤	HFS6 - 3030 - 1940		6
⑥	HFS6 - 3030 - 1440		5
⑦	HFS6 - 3030 - 1440 - RDH - LDH (See P.764)		1
	Brackets, Screws, Nuts		Quantity
⑧	HBLFSN6 - C-SET	4x13=52	
⑨	HBLFSN6 - SET	10	
⑩	HSJ6	2	



(Description)

- ② Adds a wrench hole on one end of the extrusion for Single Joint connections.
- ⑦ Adds a D Hole to each end for Joint Nuts.
- ⑧ Adds tapped holes on brackets for panels. Also includes the screw/nut sets. In this example, a panel is mounted to the side shown on the right. (Surfaces except front right and bottom)
- ⑨ Top, bottom, and middle section brackets including screw/nut sets.
- ⑩ Single Joint Kits required for ⑦ and ②.

Complete with cover plates (provided separately) mounted.

