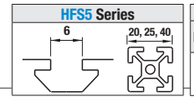
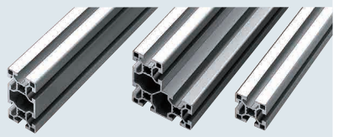
Aluminum Extrusions (HFS5 Series)

With Milled Surfaces (20, 25, 40 mm Square)

HFS5 Series	Fixing Parts			Others	
	Brackets	Nuts	Joints	Extrusion End Caps	Alteration
	P.2692–2705	P.2709–2720	P.2839–2841	P.2721	P.2862–2875

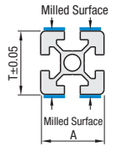
Features: Milled on upper and lower surfaces. Usable for Linear Guides, etc.

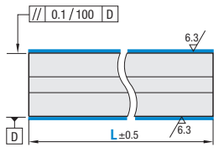
Aluminum Extrusion with Milled Surfaces



RoHS10

HFSP



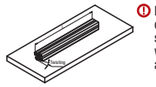


Milled and cut end surfaces are not anodized.

Material: A6N01SS-T5 Aluminum Alloy
Surface Treatment: Anodize

Detailed view of slot on milled surface

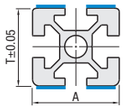
*Due to the extrusion tolerance, the thickness tolerance of the slot on the milled surface becomes as shown above, while T dimension tolerance is ±0.1.



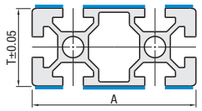
Being extruded sections, products can twist. It is recommended to support overall length of extrusion when using. See tolerance data on aluminum extrusions on **P.2685**.

For detailed dimensions and shapes EXCEPT the slots on the milled surface, A and T dimensions, please refer to the drawing of the product of the below Part Number Without "P". (For HFS5 series, refer to P.2686) (Ex.) HFSP5-2020 → Fig. HFS5-2020 (P.2686)

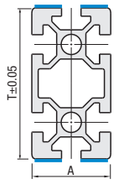
Square Type
HFSP5-2020
HFSP5-2525
HFSP5-4040



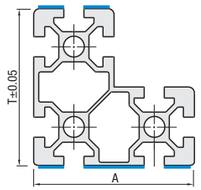
Rectangle Type (Horizontal)
HFSP5-4020
HFSP5-5025
HFSP5-6020
HFSP5-8020
HFSP5-6040
HFSP5-8040



Rectangle Type (Vertical)
HFSP5-2040
HFSP5-2550
HFSP5-2060
HFSP5-2080
HFSP5-4060
HFSP5-4080



L-Shaped Type
HFSP5-404020



Part Number		L 0.5 mm Increment	Extrusions Series	T	A	Alteration Charge (Body+) Counterboring XA–XE (per row)	Alteration Charge (Body+) Drill Wrench Hole AV–EV (per row)	Tapping (Refer to P.2864) Tap Shapes
HFSP5	2020	100–3000	HFS5	19.2	20	Z5 d5.5 $d_1$9.5 Z6 d6.5 $d_1$11	D7 Ø7.35	M5 Depth 15
	4020			19.2	40			
	2040			39.2	20			
	2525			24.2	25			M8 Depth 24
	5025			24.2	50			
	2550			49.2	25			
	6020			19.2	60			M5 Depth 15
	2060			59.2	20			
	8020			19.2	80			
	2080			79.2	20			
	4040			39.2	40			
	6040			39.2	60			
	4060			59.2	40			
	8040			39.2	80			
	4080			79.2	40			
	404020			39.2	40			

Part Number Example

Part Number - L
HFSP5-2020 - 300

Part Number Alterations

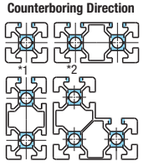
Drilling hole at a specified position can be done.

Nuts for Extrusion
Please use nuts for aluminum extrusions. Refer to **P.2709–2720**

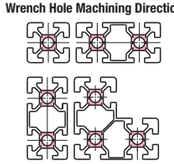
Alterations	Counterboring							Wrench Hole					
Code	Z Selection			XA	XB	XC	XD	XE	D Selection	AV	BV	CV	DV	EV
Spec.	Z	d	d_1	Distance from The Left End Plane mm					D	Distance from The Left End Plane mm				
Alterations	Counterboring								Wrench Hole					
Specifications of Hole Size & Position	5	5.5	9.5	7 to (L-7)					7	7 to (L-7)				
	6	6.5	11											

When the cross section is L-shaped, select distance from left end with lower section in front.

Counterboring Direction



Wrench Hole Machining Direction

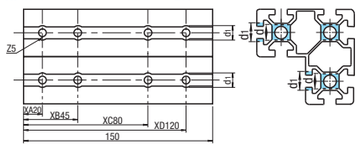


*1 When the cross section is rectangle (vertical), counterboring is not available for extrusions exceeding 60 mm in the length direction.

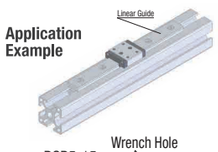
*2 When the cross section is L-shaped, counterboring is not available for extrusions exceeding 60 mm in longitudinal direction, except for the lower portion.

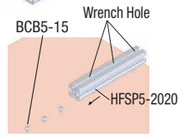
Part Number Example

HFSP5 - 404020 - 150 - Z5 - XA20 - XB45 - XC80 - XD120
HFSP5 - 2020 - 2000 - D7 - AV100 - BV120 - CV1000 - DV1880 - EV1900
HFSP5 - 4040 - 800 - LTP

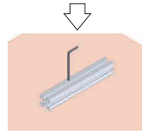


Application Example





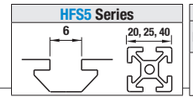
Install button bolts temporarily in reference plane, then slide the extrusion to fixing position, passing bolt heads through extrusion slot.



Put wrench in the wrench hole and tighten the screw.

Curved Extrusions (HFS5 Series)

20, 25, 40 mm Square

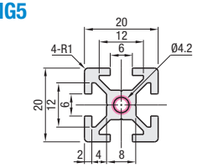
HFS5 Series	Fixing Parts			Others	
	Brackets	Nuts	Joints	Extrusion End Caps	Alteration
	P.2692–2705	P.2709–2720	P.2844–2857	P.2721	P.2862–2875

Features: Bending is applied to HFS5-2020. Combination use with Curved Panel is possible. (Refer to **P.3081**)

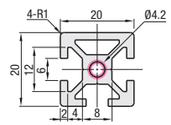
HFS5 Series – Curved Extrusions

RoHS10

HFSMG5

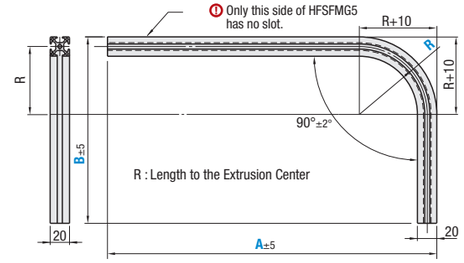


HFSFMG5



Bending is applied after anodizing; therefore, bent section may slightly discolor and becomes white.

A and B dimensions not indicated in the price list are not available.



When R=140, the frame slot may be deformed and becomes narrower in width at the spot where the frame is bent. Therefore, slot nut cannot be used.

(For dedicated Bent Panels, refer to **P.3081**)

Part Number Type	Part Number No.	A 1 mm Increment	B 1 mm Increment	R *	Series	Mass kg/m	Sectional Area mm²	Cross Sectional Moment of Inertia mm⁴ ℓx	Cross Sectional Moment of Inertia mm⁴ ℓy
HFSMG HFSFMG	5-2020	200–1500	200–1000	140 300* 500*	HFS5	0.50	183	0.742×10^4	0.742×10^4

*Bent panels for R300 and R500 are not available.

Part Number Example

Part Number - A - B - R
HFSMG5-2020 - A350 - B700 - R140

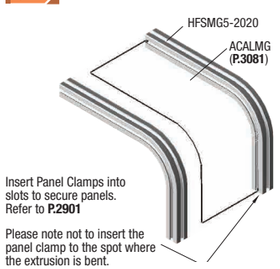
Part Number Type	Part Number No.	A	Available Types R140 B 200–300	R140 B 301–400	R140 B 401–500	R140 B 501–600	R140 B 601–700	R140 B 701–800	R140 B 801–900	R140 B 901–1000	R300 B 400–500	R300 B 501–600	R300 B 601–700	R300 B 701–800	R300 B 801–900	R300 B 901–1000	R500 B 600–700	R500 B 701–800	R500 B 801–900
HFSMG HFSFMG	5-2020	200–300	•	•	•	•	•	•	•	•	—	—	—	—	—	—	—	—	—
		301–400	•	•	•	•	•	•	•	•	—	—	—	—	—	—	—	—	—
		401–500	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—
		501–600	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—
		601–700	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
		701–800	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—
		801–900	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—
		901–1000	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—
		1001–1100	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—
		1101–1200	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—
		1201–1300	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—
		1301–1400	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—
		1401–1500	•	•	•	•	•	•	•	•	•	•	•	•	•	•	—	—	—

Part Number Alterations

Part Number - A - B - R - (LTP / RTP / TPW…etc.)
HFSMG5-2020 - A400 - B500 - R140 - LTP-LMH

Alterations	Tap (Refer to P.2864)			M Hole (Refer to P.2873)			
Code	LTP	RTP	TPW	LMH	LMV	RMH	RMV
Spec.	Tapping to the center hole Tap Shape M5 Depth 15 **LTP**: Tapping on the Left End Face **RTP**: Tapping on the Bottom End Face **TPW**: Tapping on the Both Ends Ex. LTP Tapped			Adds M type hole in specified position. **LMH**,**RMH**: Machines M type hole on the left-hand bottom of the extrusion from the horizontal direction. Ex. LMH 10 Ø7.1 **LMV**,**RMV**: Machines a hole on the left-hand bottom of the extrusion from the vertical (right) direction. Ex. RMV Ø7.1 10			
When tapping and M type hole alteration are both specified, the depth of tapping hole will be up to M Hole.							
Applicable Extrusions							

Application Example



Insert Panel Clamps into slots to secure panels. Refer to **P.2901**

Please note not to insert the panel clamp to the spot where the extrusion is bent.