

Aluminum Extrusions

Angles / Channels

Aluminum Extrusions - Angle

HFHL

Material: 6063-T5 Aluminum Alloy Surface Treatment: Clear Anodize

RoHS 10

Type	Part Number		T	L 1 mm Increment	Mass kg/m	Sectional Area mm ²	Second Moment of Inertia of Cross Section	
	A	B					$I_x \times 10^4$	$I_y \times 10^4$
HFHL Angle	15	30	2	50-2000	0.232	86	0.14	0.807
			3		0.206	76	0.288	0.288
	20	20	2		0.301	111	0.403	0.403
			3		0.315	116	0.348	1.964
	20	40	2		0.464	171	0.489	2.82
			3		0.381	141	0.819	0.819
	25	25	2		0.583	216	0.993	5.661
			3		0.315	116	1.019	1.019
	30	30	2		0.464	171	1.458	1.458
			3		0.745	275	2.21	2.21
	40	40	2		0.412	156	2.47	2.47
			3		0.626	231	3.58	3.58
	50	50	2		1.016	375	5.56	5.56
			3		0.785	291	7.15	7.15
	60	60	2		1.553	575	19.9	19.9
			3		2.333	864	46.88	46.88
75	75	2	3.143	1164	114.3	114.3		
		3	4.763	1764	397.5	397.5		

Part Number Example: **HFHL3030 - 3 - 800**

Part Number Alterations: **HFHL2040 - 2 - 90 - N8 - XA42-XB62-YA20-YB42**

Alterations Through Hole

Spec. Adds through holes on the extrusion. N is a nominal diameter.

Face of Extrusion	N (Selection)
X	3 4 5 6 8
Y	

5+N/2 is needed from an end.
Only 1 dia. is selectable for N.
When A = 15, only N3 / 4 / 5 are available.
One face has up to five holes.

Hole Machining Details

Ordering Code: Specification of Hole Size and Position (Ex.)

N (Select from the table)
Extrusion Plane
Hole machining on this plane (in the order of A / B / C)
Distance from the end (1mm increment)

Machining Plane

Aluminum Extrusions - Channels

HFHC

Material: 6063-T5 Aluminum Alloy Surface Treatment: Clear Anodize

RoHS 10

Type	Part Number		T	L 1 mm Increment	Mass kg/m	Sectional Area mm ²	Second Moment of Inertia of Cross Section	
	A	B					$I_x \times 10^4$	$I_y \times 10^4$
HFHC Channels	15	15	2	50-2000	0.222	82	0.1433	0.227
					0.304	112	0.232	1.471
	20	20			0.304	112	0.453	0.719
					0.412	152	0.576	3.688
	25	25			0.381	142	1.479	0.911
					0.761	282	1.640	10.42

Part Number Example: **HFHC1515 - 2 - 800**

Part Number Alterations: **HFHC2040 - 2 - 90 - N8 - XA50-YA20-ZA20-ZB42**

Alterations Through Hole

Spec. Adds through holes on the extrusion. N is a nominal diameter.

Plane of Extrusion	N (Selection)
X	3 4 5 6 8
Y	
Z	

5+N/2 is needed from an end.
Only 1 dia. is selectable for N.
When A and B dimensions are 15, only N3 / 4 / 5 can be selected.
One face has up to five holes.

Hole Machining Details

Ordering Code: Specification of Hole Size and Position (Ex.)

N (Select from the table)
Extrusion Plane
Hole machining on this plane (in the order of A / B / C)
Distance from the end (1mm increment)

Machining Plane

Aluminum Extrusions

Flat Bars / Rectangular Tubing

Aluminum Extrusions - Flat Bars

HFHF

Material: 6063-T5 Aluminum Alloy Surface Treatment: Clear Anodize

RoHS 10

Type	A	T	L 1 mm Increment	Less than 300mm			300mm or More		
				2	3	5	2	3	5
HFHF Flat Bars	10	3	50-2000	—	•	—	—	•	—
				•	•	•	•	•	•
				•	•	•	•	•	•
				•	•	•	•	•	•
				•	•	•	•	•	•
				•	•	•	•	•	•

A	Mass kg/m			Sectional Area mm ²			Second Moment of Inertia of Cross Section $I_x \times 10^4$			Second Moment of Inertia of Cross Section $I_y \times 10^4$		
	2	3	5	2	3	5	2	3	5	2	3	5
10	—	0.081	—	—	30	—	—	0.003	—	—	0.023	—
15	0.08	0.122	—	30	45	—	0.001	0.003	—	0.056	0.084	—
20	0.108	0.163	0.271	40	60	100	0.001	0.005	0.021	0.133	0.200	0.333
25	0.135	0.202	0.338	75	125	184	0.002	0.006	0.026	0.029	0.389	0.649
30	0.163	0.244	0.406	60	90	150	0.002	0.007	0.031	0.450	0.675	1.125
40	—	0.330	0.542	—	120	200	—	0.009	0.042	—	1.600	2.670
50	—	0.405	0.675	—	150	250	—	0.011	0.052	—	3.125	5.208

Part Number Example: **HFHF20 - 2 - 90 - N8 - YA20-YB55**

Part Number Alterations: **HFHF20 - 2 - 90 - N8 - YA20-YB55**

Alterations Through Hole

Spec. Adds through holes on the extrusion. N is a nominal diameter.

Plane of Extrusion	N (Selection)
Y	3 4 5 6 8

5+N/2 is needed from an end.
Only 1 dia. is selectable for N.
When A=10, only N3 / N4 / N5 are available.
One face has up to five holes.

Hole Machining Details

Ordering Code: Specification of Hole Size and Position (Ex.)

N (Select from the table)
Extrusion Plane
Hole machining on this plane (in the order of A / B / C)
Distance from the end (1mm increment)

Machining Plane

Aluminum Extrusions - Rectangular Tubing

HFHQ

Material: 6063-T5 Aluminum Alloy Surface Treatment: Clear Anodize

RoHS 10

Type	Part Number		T	L 1 mm Increment	Mass kg/m	Sectional Area mm ²	Second Moment of Inertia of Cross Section	
	A	B					$I_x \times 10^4$	$I_y \times 10^4$
HFHQ Rectangular Tubing	15	15	1.5	50-2000	0.220	81	0.249	0.249
					0.342	126	0.454	1.406
	20	20			0.390	144	0.787	0.787
					0.607	224	1.437	4.445
	25	25			0.497	184	1.634	1.634
					0.766	284	2.96	9.007
	30	30			0.607	224	2.941	2.941
					0.934	344	5.297	15.94
	40	40			0.824	304	7.336	7.336
					1.257	464	13.11	38.97
	50	50			1.036	384	14.77	14.77

Part Number Example: **HFHQ3030 - 2 - 500**

Part Number Alterations: **HFHQ2040 - 2 - 90 - N8 - YA60-ZA20-QA45**

Alterations Through Hole

Spec. Adds through holes on the extrusion. N is a nominal diameter.

Plane of Extrusion	N (Selection)
X	3 4 5 6 8
Y	
Z	
Q	

5+N/2 is needed from an end.
Only 1 Dia. is selectable for N.
When A and B dimensions are 15, only N3 / 4 / 5 can be selected.
One face has up to five holes.

Hole Machining Details

Ordering Code: Specification of Hole Size and Position (Ex.)

N (Select from the table)
Extrusion Plane
Hole machining on this plane (in the order of A / B / C)
Distance from the end (1mm increment)

Machining Plane