

Acc-u-Plate®

Consistency & performance
in machine grade wide bar



As part of **Hydro's** industry leading **ACC-U-LINE™** extruded aluminum products, **ACC-U-PLATE®** offers the highest quality and value for high-speed precision machining.

As part of Hydro's industry-leading ACC-U-LINE® Products, ACC-U-PLATE offers the **best total value** for extruded wide bar requirements:

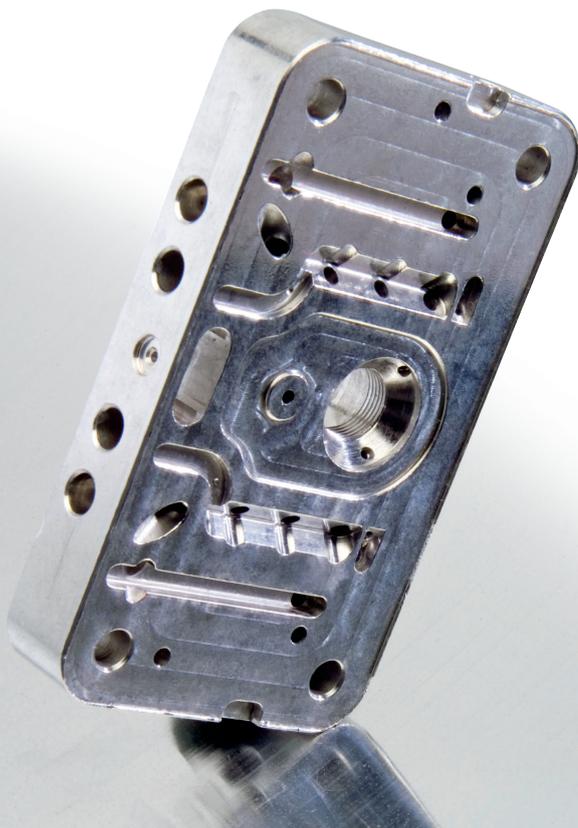
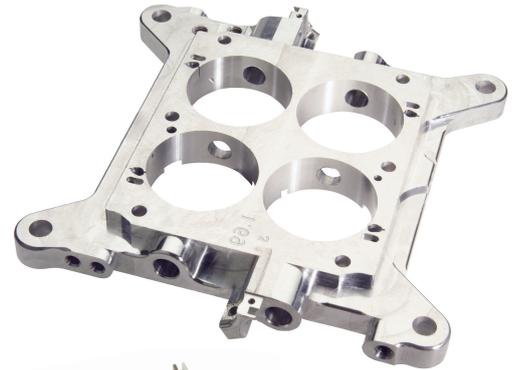
- Tight thickness and width tolerances – all on the plus side of nominal and half that of standard rolled plate. ACC-U-PLATE is the rolled plate alternative.
- Controlled, **consistent flatness** in transverse and longitudinal directions
- Minimum 6061-T6, -T6511 mechanical properties (ultimate tensile strength and yield strength) equal to higher-priced 6061-T651 rolled plate
- Minimum elongation equal to or exceeding 6061-T651 rolled plate

In addition to its high physical and mechanical properties, stress-relieved (-T6511) **ACC-U-PLATE is excellent for machining precision parts.** Proven in high-speed production environments, this innovative product reduces machine setup time and extends tool life with fewer rejects and less waste.

All these benefits, combined with ACC-U-PLATE's ready availability and wide choice of sizes, make it an ideal alternative to rolled plate. ACC-U-PLATE is offered by Hydro and its selected Distribution Partners.

Specify ACC-U-PLATE for:

- Molds
- Dies
- Machine Components
- Gauges
- Structural Supports
- Bases & Housings
- Tools
- Jigs & Fixtures
- Electronic Components



Flatness Tolerances¹ (deviation from flat in inches)

Direction	Surface Width/Length	ACC-U-PLATE Flatness
Longitudinal ³	Up to 6 ft.	.100"
	In any 2 ft. or less	.060"
Transverse	Over full width (inches)	.0025" x width ²

1 Measured with weight of piece on flat surface

2 Transverse flatness does not apply to one-inch increments

3 Maximum deviation for total flatness includes twist and straightness

ACC-U-PLATE® is a registered trademark of Hydro.

Flatness for Sawed or Sheared Rolled Plate¹ (T651 temper)

Property	Surface Width/Length	Non Aerospace Rolled Plate 6061-T651		Rolled Tooling Plate ² 6061-T651	
		Thickness	Flatness Tolerance	Thickness	Tolerance
Longitudinal	In any 6 ft. or less span	.250" - 3.000"	0.188" ³	.250 - 6.000"	.100"
		3.001" - 8.000"	0.125"		
Short Span	In any 2 ft. or less span	.250" - .624"	0.100"	.250 - 6.000"	.060"
		.625" - 8.000"	0.075"		

¹ Measured with weight of piece on flat surface

² 6061-T651 Type 200 Wrought Tooling Plate, 36.5" to 72.5" widths

³ For lengths ordered less than 6 ft., the tolerance is .125" for total length

Comparative Mechanical Properties

Property		ACC-U-PLATE [*] 6061-T6, -T6511	ACC-U-PLATE ² 6082-T6, -T6511	Rolled Plate 6061-T651
Min. Ultimate Tensile (ksi)	Longitudinal direction	42.0 ¹	45.0	42.0
Min. Yield Tensile (ksi)	Longitudinal direction	35.0	38.0	35.0
Min. Elongation %	Longitudinal direction	10	8	6-10 (based on thickness)
Typical Hardness Brinell (500Kg load, 10mm ball)		95	95	95
Typical Ultimate Shear Strength (ksi)		30	31	30
Standard Specifications ³		ASTM B 221 ASME SB 221	ASTM B 221	ASTM B 209 ASME SB 209

¹ Minimum tensile strength for less than .375" thickness; ACC-U-PLATE[®] is 38.0 ksi. ² For .751" to 6.000" thickness

³ ACC-U-PLATE[®] product greater than 0.375" thick in 6061-T6/T6511 alloy temper meets 6061-T651 tensile strength, yield strength, and elongation minimums of rolled plate produced per AMS-QQ-A-250/11 and ASTM B 209.

Comparative Tolerances** (inches)

Thickness	ACC-U-PLATE ¹ Extruded 8" and greater widths	Rolled Plate-Non Aerospace 6061-T651 39.37" thru 59.06" widths	Rolled Tooling Plate ³ 6061-T651 48.5" width x 144.5" length
Inches	Inches	Tolerance-Inches	Tolerance-Inches
0.250	+ .016" ²	+/- .014"	+ .014"
0.375	+ .016"	+/- .017"	+ .017"
0.500	+ .022"	+/- .023"	+ .023"
0.750	+ .030"	+/- .031"	+ .031"
1.000	+ .038"	+/- .039"	+ .039"
1.250	+ .038"	+/- .039"	+ .039"
1.500	+ .038"	+/- .039"	+ .039"
1.750	+ .048"	+/- .055"	+ .055"
2.000	+ .054"	+/- .055"	+ .055"
2.250	+ .054"	+/- .055"	+ .055"
2.500	+ .074"	+/- .075"	+ .075"
3.000	+ .074"	+/- .075"	+ .075"
3.500	+ .100"	+/- .100"	+ .100"
4.000	+ .130"	+/- .130"	+ .130"

ACC-U-PLATE is available in standard sizes from Hydro and Premier[®] Distribution Partners.

¹ ACC-U-PLATE[®] tolerances are all on plus side ² Thickness tolerance for widths over 12.000" is +.025/- .000" ³ 6061-T651 Type 200 Wrought Tooling Plate

** For lengths over 12 ft., inquire about tolerances

Standard Sizes (Inches)

Thickness X Width (")		Wt./Ft.	Section #	Thickness X Width (")		Wt./Ft.	Section #
.250 (+.016) X	8.000 (+.108)	2.444	510969*	.875 (+.030) X	10.000 (+.148)	10.544	510985
.250 (+.016) X	10.000 (+.148)	3.056	510970*	.875 (+.030) X	12.000 (+.168)	12.648	510986
.250 (+.016) X	12.000 (+.168)	3.667	510971*	.875 (+.031) X	14.000 (+.188)	14.760	510628
.250 (+.025) X	14.000 (+.168)	4.343	510623*	.875 (+.030) X	16.000 (+.208)	16.964	515522
.312 (+.025) X	12.000 (+.168)	4.611	514124*	.875 (+.030) X	18.000 (+.228)	18.959	518704
.375 (+.016) X	8.000 (+.108)	3.637	510972	1.000 (+.038) X	9.000 (+.108)	10.850	511927
.375 (+.016) X	10.000 (+.148)	4.549	510973	1.000 (+.038) X	10.000 (+.148)	12.072	510988
.375 (+.016) X	12.000 (+.168)	5.457	510974	1.000 (+.038) X	12.000 (+.168)	14.481	510989
.375 (+.016) X	14.000 (+.188)	6.481	510624	1.000 (+.038) X	13.000 (+.168)	15.680	514801
.500 (+.022) X	8.000 (+.108)	4.840	510975	1.000 (+.038) X	14.000 (+.188)	16.890	510629
.500 (+.022) X	10.000 (+.148)	6.054	510976	1.000 (+.038) X	15.000 (+.188)	18.088	514789
.500 (+.022) X	12.000 (+.168)	7.262	510977	1.000 (+.038) X	16.000 (+.208)	19.298	515175
.500 (+.022) X	14.000 (+.188)	8.470	510625	1.000 (+.038) X	18.000 (+.228)	21.707	515458
.500 (+.022) X	16.000 (+.208)	9.753	518673	1.125 (+.038) X	12.000 (+.168)	16.257	514059
.625 (+.022) X	8.000 (+.108)	6.023	510978	1.125 (+.038) X	16.000 (+.208)	21.665	517333
.625 (+.022) X	10.000 (+.148)	7.535	510979	1.125 (+.038) X	18.000 (+.228)	24.370	515788
.625 (+.022) X	12.000 (+.168)	9.038	510980	1.250 (+.038) X	8.000 (+.108)	12.020	510990
.625 (+.022) X	14.000 (+.188)	10.541	510626	1.250 (+.038) X	10.000 (+.148)	15.034	510991
.625 (+.022) X	16.000 (+.208)	12.045	518674	1.250 (+.038) X	12.000 (+.168)	18.034	510992
.750 (+.030) X	8.000 (+.108)	7.245	510981	1.250 (+.038) X	14.000 (+.188)	21.033	510630
.750 (+.030) X	10.000 (+.148)	9.063	510982	1.250 (+.038) X	16.000 (+.208)	24.033	515523
.750 (+.030) X	12.000 (+.168)	10.871	510983	1.250 (+.038) X	18.000 (+.228)	27.033	515789
.750 (+.030) X	14.000 (+.188)	12.680	510627	1.375 (+.038) X	12.000 (+.168)	19.817	514061
.750 (+.030) X	16.000 (+.208)	14.488	515521	1.375 (+.038) X	14.000 (+.188)	23.105	514062
.750 (+.030) X	18.000 (+.228)	16.296	518675				

Available In 6061 AND 6082 Alloys; Standard 12 ft. lengths. For lengths over 12 ft., inquire about tolerances.

*See comparative mechanical properties and tolerance tables.

Other sizes may be available upon request.

in machine grade wide bar

Acc-u-Plate®

Standard Sizes (Inches) *continued*

Thickness X Width (")	Wt./Ft.	Section #
1.500 (+.038) X 10.000 (+.148)	17.995	510994
1.500 (+.038) X 12.000 (+.168)	21.587	510995
1.500 (+.038) X 14.000 (+.188)	25.177	510761
1.500 (+.038) X 16.000 (+.208)	28.767	515524
1.500 (+.038) X 18.000 (+.228)	32.358	515459
1.625 (+.038) X 12.000 (+.168)	23.363	514063
1.625 (+.038) X 16.000 (+.208)	31.135	517335
1.750 (+.048) X 8.000 (+.108)	16.803	510996
1.750 (+.048) X 10.000 (+.148)	21.016	510997
1.750 (+.048) X 12.000 (+.168)	25.210	510998
1.750 (+.048) X 14.000 (+.188)	29.404	510631
1.750 (+.048) X 16.000 (+.208)	33.596	515525
2.000 (+.054) X 10.000 (+.148)	24.014	511000
2.000 (+.054) X 12.000 (+.168)	28.805	511001
2.000 (+.054) X 14.000 (+.188)	33.597	510632
2.000 (+.054) X 16.000 (+.208)	38.388	515176
2.250 (+.054) X 10.000 (+.148)	26.976	514018
2.250 (+.054) X 14.000 (+.188)	37.740	514558

Thickness X Width (")	Wt./Ft.	Section #
2.250 (+.054) X 16.000 (+.208)	43.123	515737
2.250 (+.054) X 16.250 (+.208)	43.792	532486
2.500 (+.074) X 10.000 (+.188)	30.116	514020
2.500 (+.074) X 12.000 (+.168)	36.083	515093
2.500 (+.074) X 14.000 (+.188)	42.050	515092
2.500 (+.074) X 16.000 (+.208)	48.045	515526
3.000 (+.074) X 10.000 (+.148)	35.979	515095
3.000 (+.074) X 12.000 (+.168)	43.158	515096
3.000 (+.074) X 14.000 (+.188)	51.075	515094
3.000 (+.074) X 16.000 (+.208)	57.516	515527
3.500 (+.100) X 10.000 (+.148)	42.057	516402
3.500 (+.100) X 12.000 (+.168)	50.448	516403
3.500 (+.100) X 14.000 (+.188)	58.840	516404
3.500 (+.100) X 16.000 (+.208)	67.231	518716
4.000 (+.130) X 10.000 (+.148)	48.158	518718
4.000 (+.130) X 12.000 (+.168)	57.770	516405
4.000 (+.130) X 14.000 (+.188)	67.375	516406

Available In 6061 AND 6082 Alloys; Standard 12 ft. lengths. For lengths over 12 ft., inquire about tolerances.

*See comparative mechanical properties and tolerance tables.

Other sizes may be available upon request.





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Information and specifications herein subject to change without notice

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