

TEST CERTIFICATE

BH 10/22/12
LNI



Certificate No : 1204LB7817

Hulamin Limited Reg. No. 1940/013924/06 VAT Reg. No. 4080149604
HEAD OFFICE: Moses Mabhida Rd, Pietermaritzburg 3201, P.O. Box 74, Pietermaritzburg 3200, South Africa
Telephone: +27 33 395 6911 Telefax: +27 33 394 6335

BUYER: COAST ALUMINUM AND ARCHITECTURAL INC 10628 FULTON WELLS AVENUE SANTE FE SPRING CA 90670	Hulamin Load No: HL011186 Lot No : 03/05/098C6 P/List No : 2/1123409 Release No : RE092956	Product : PLATE HEAT TREATED FINISHED,, 6061-T651 1.75" x 48.5" x 144.5" Dimension : 1.75" X 48.5" X 144.5" Alloy - Temper : 6061 - T651
	Cust Order No : F0512-10-12 HULAMIN Order No : 069772E Item Part : 1/1	Certificate No : 1204LB7817 Cust Ref/Part No: Combined P/List No : R119153

Case No : PFL712,PFL711,PFL710

MECHANICAL TEST RESULTS

Lot No.	Cast No.	Metal Id	Alloy	Spec No	Mechanical Properties							
					Yield Strength (Ksi)	UTS (Ksi)	Elongation A50 (%)	Earing (%)	TestDate	Gauge Length (Inches)	Bend Test	Actual Gauge (Inches)
Spec				Min Max	35.1	42.0	8					1.75 1.805
03/05/098C6	TXWY	28882066	6061	1	43.6	48.1	14		27/04/12	2		1.788
				2	43.6	48.1	14		27/04/12	2		1.788

CHEMICAL COMPOSITION

	Cast No.	Alloy	Si (%)	Fe (%)	Cu (%)	Mn (%)	Mg(%)	Cr(%)	Zn (%)	Ti (%)	Each(%)	Total(%)	Al(%)
Min			0.40		0.15		0.8	0.04					
Max			0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15	0.05	0.15	
	TXWY	6061	0.67	0.37	0.28	0.11	0.94	0.20	0.01	0.008			97.38

CONFORMS TO: ASME SB-209 ASTM B209/10 AMS 4027N AMS-QQA-250/11, 08.1997

For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded "to the nearest unit" in the last right-hand digit used in expressing the specification limit, in accordance with the rounding method of ASTM Practice E29, for Using Significant Digits in Test Data to Determine Conformance with Specifications.

WE HEREBY CERTIFY, THAT THE MATERIAL DESCRIBED ABOVE HAS BEEN TESTED AND COMPLIES WITH THE TERMS OF THE ORDER CONTRACT. THE INSPECTION RESULTS INDICATED IN THE CHEMICAL COMPOSITION HAVE BEEN OBTAINED FROM CAST ANALYSIS.

Dr. A. Pitchford(HEAD OF CHEMICAL TESTING)

Ver 1.0.1

V. Maniram(HEAD OF PHYSICAL TESTING)

MARTINEZ & TUREK INC.

300 SOUTH CEDAR RIALTO, CA 92376-9120
(909)820-6800

PURCHASE ORD.NO: 63531

VENDOR I.D. COA1043

PAGE NO.

Print Date:

PURCHASED FROM:

COAST ALUMINUM
10628 FULTON WELLS AVE
SANTA FE SPRINGS, CA 90670
PHONE: 800-610-6061
FAX: 562-946-4188
CONTACT: GREG POWELL

ENTERED

81607

SHIP TO:

MARTINEZ AND TUREK, INC.
300 SOUTH CEDAR AVE.
RIALTO, CA 92376-9102
PHONE: 909-820-6800

SHIP VIA

VENDOR TRUCK

F.O.B.

RIALTO, CA

ORD DATE
10/19/2012

DUE DATE
10/22/2012

CERTIFICATIONS REQ'D

- ☐ CERTIFICATION OF CONFORMANCE
☐ TYPICAL MILL TEST REPORT
☐ ACTUAL MILL TEST REPORT
☐ NONE

BUYER: DTUREK/MT

<u>QTY</u> / <u>UM</u>	<u>DESCRIPTION</u>	<u>UNIT PRICE</u>	<u>EXT. PRICE</u>
1) 10% 12 EA	1-3/4" 6061-T651 ALUM. PLATE 1-3/4" PLT. x 24.50 x 40.50 IN. PER QQ-A-250/11 Deliver on: 10/22/2012 Used by 26671/1 Op# 1000 Pc# 1		

NOTES: ROUTE TO TOM ZURN *T
TYPICAL MILL TEST REPORTS REQUIRED

TOTAL:

Total Est. Freight: \$0.00

NOTICE: UNLESS OTHERWISE SPECIFIED, THIS PURCHASE ORDER IS NON-TAXABLE.

SELLER IS HEREBY ISSUED RESALE NUMBER: SREHA-23-709653, AND WILL REPORT AND PAY ANY TAXES THAT MAY LATER BE DETERMINED. THIS PURCHASE ORDER IS SUPPLEMENTED BY ATTACHED "TERMS & CONDITIONS". SELLER IS ADVISED TO CONTACT BUYER IF "TERMS & CONDITIONS" ARE NOT INCLUDED WITH THIS PURCHASE ORDER PACKAGE.

NOTICE: SEE "TERMS AND CONDITIONS" REFERENCED ON LAST PAGE OF THIS PURCHASE ORDER.



MARTINEZ & TUREK, INC.

INSPECTION REPORT

☐ REC.
 ☐ IN PROCESS
 ☒ FINAL
☐ FIRST ARTICLE

PAGE 1 OF 2

DATE <u>01-03-2013</u>		JOB NO. <u>26671</u>		CUSTOMER OR VENDOR NAME AND ADDRESS <u>CALIFORNIA INSTITUTE OF TECH</u>			
PART NO. <u>SEDM-S-S01</u>			REV. <u>C</u>				
PART NAME <u>BASE PLATE</u>							
SOURCE INSP.		PURCHASE ORDER NO.		P.O. REV.	DATE INSP.	INSPECTOR	
CUST.	GOVT.	M&T	<u>39-0151541</u>	<u>-</u>	<u>01-03-13</u>	<u>JOC MATH</u>	
QTY. INSP.	QTY. REJECTED	QTY. ACCEPTED	SERIAL NO'S.		RESPONSIBILITY		R.R. NO.
<u>1</u>	<u>0</u>	<u>1</u>			VENDOR <input type="checkbox"/> CO. <input type="checkbox"/>		
NO.	B/P NOTE OR SPEC.	DESCRIPTION: / CHARACTERISTICS: / NOTE:			INSP. METHOD	ACCEPT / REJECT	
	3. BAG AND TAG WITH NUMBER SEDM-S-001 2. REMOVE ALL BURRS AND BREAK SHARP EDGES 0.003 - 0.010. 1. THIS IS A LIMITED DIMENSION DRAWING. FEATURES DEFINING THE TRUE PROFILE OF THE PART SHALL BE OBTAINED FROM THE CAD MODEL NAMED 'SEDM-S-001-BASEPLATE'. THE TRUE PROFILE OF SURFACES, EXCLUDING HOLES AND CYLINDERS, SHALL BE <input type="checkbox"/> 0.010 <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C. PERMISSIBLE VARIATIONS OF FEATURES WITH INCOMPLETE DIMENSIONS AND/OR TOLERANCE INDICATION SHALL BE OBTAINED WHEN MEASURED FROM PRIMARY DATUM <input type="checkbox"/> A, SECONDARY DATUM <input type="checkbox"/> B, AND TERTIARY DATUM <input type="checkbox"/> C. NOTES: UNLESS OTHERWISE SPECIFIED						
					<u>2</u> Conforms	<u>2</u> M&T	
					<u>1.</u> Conforms	<u>1</u> M&T	
					<u>4.</u> Conforms	<u>4</u> M&T	
					<u>3.</u> Conforms	<u>3</u> M&T	
<u>4.</u>	<u>Bag and tag with number SEDM-S-001</u>						
<u>3.</u>	<u>plug hole prior to anodizing</u>						



MARTINEZ & TUREK, INC.

INSPECTION REPORT

☐ REC.

☐ IN PROCESS

☒ FINAL

☐ FIRST ARTICLE

 PAGE 2 OF 7

DATE <u>01-03-2013</u>		JOB NO. <u>26671</u>		CUSTOMER OR VENDOR NAME AND ADDRESS <u>CALIFORNIA INSTITUTE OF TECH</u>			
PART NO. <u>SEDM-S-S01</u>		REV. <u>C</u>					
PART NAME <u>BASE PLATE</u>							
SOURCE INSP.		PURCHASE ORDER NO.		P.O. REV.		DATE INSP.	
CUST.	GOVT.	M&T	<u>39-S 151541</u>	<u>-</u>		<u>01-03-13</u>	
INSPECTOR <u>Joe Martin</u>							
QTY. INSP.	QTY. REJECTED	QTY. ACCEPTED	SERIAL NO'S.	RESPONSIBILITY		R.R. NO.	
<u>1</u>	<u>0</u>	<u>1</u>	<u>-</u>	VENDOR <input type="checkbox"/> CO. <input type="checkbox"/>			
NO.	B/P NOTE OR SPEC.	B/P DIM. & TOL.	SET UP/TOOL	ACTUAL DIMENSIONS		ACCEPT / REJECT	
	<u>SHT1</u>						
1	F5	2X 0.822	11148-08	2X. 822 / .823		M&T 3	
2	F5	2X Ø 0.201 \pm .01	G-PIN	2X Ø .201		M&T 3	
3	F5	1 0.750 \pm .01	11148-08	.750 / .760		M&T 3	
4	F5	1/4-20 UNC	1140	Verified		M&T 3	
5	F5	1 0.500 \pm .01	11148-08	500 / .505		M&T 3	
6	F5	1 Ø .014 A/B/C	11148-08	.004 / .007		M&T 3	
7	D7	2X 2.125	CMM	2.124 / 2.125		M&T 3	
8	D7	0.856		.856		M&T 3	
9	D7	0.174		.175		M&T 3	
10	D6	0.455 \pm .01		.455		M&T 3	
11	D6	1.288		1.289		M&T 3	
12	D6	1.428 \pm .01		1.428		M&T 3	
13	D6	1.591		1.590		M&T 3	
14	D6	1.625 \pm .01		1.625		M&T 3	
15	D6	1.700		1.701		M&T 3	
16	EG	6.831		6.832		M&T 3	
17	EG	4.713		4.713		M&T 3	
18	D6	1.750 \pm .01		1.750		M&T 3	
19	EG	2V 2.855		2X 2.856		M&T 3	
20	EG	2X 3.354		2X 3.355		M&T 3	
21	EG	2X 3.793	CMM	2X 3.794		M&T 3	

300 SOUTH CEDAR AVENUE, RIALTO, CALIFORNIA 92376-9102 PHONE: (909) 820-6800 FAX: (909) 873-3735

RECISION MACHINING • TOOLING & PROTOTYPE • FABRICATION • DESIGN ENGINEERING • MAJOR ASSEMBLIES

qp-8.2.4-3

JOB NO. 26671 PART NO. SEDM-S-S01

INSPECTION REPORT

PAGE 3 OF 7

NO.	B/P ZONE OR ITEM	B/P DIM. & TOL.	SET UP/TOOL	ACTUAL DIMENSION	ACCEPT / REJECT
	SHT1				
22	E6	2X 4.979	CMM	2X 4.978/4.979	M&T 3
23	E6	2X 7.354		2X 7.354/7.355	M&T 3
24	E6	8.854		8.854	M&T 3
25	D5	2.309		2.310	M&T 3
26	D5	1.750 \pm .01		1.750	M&T 3
27	D5	1.625 \pm .01		1.625	M&T 3
28	D5	1.242		1.242	M&T 3
29	D5	1.185 \pm .01		1.185	M&T 3
30	D5	2.107		2.108	M&T 3
31	D5	10.247	CMM	.247	M&T 3
32	D5	12X ϕ 0.150 \pm .01	G-PIN	12X ϕ .150	M&T 3
33	D5	∇ 0.500 \pm .01	11148-08	.500/.510	M&T 3
34	D5	10-24 UNC-2B	1140	Verified	M&T 3
35	D5	∇ 0.380 \pm .01	11148-08	.380/.390	M&T 3
36	D5	ϕ 0.014 A/B/C	CMM	.004/.007	M&T 3
37	C5	3X ϕ 0.201 \pm .01	CMM	3X ϕ .200/ ϕ .201	M&T 3
38	C5	∇ 0.500 \pm .01	11148-08	.500/.510	M&T 3
39	C5	1/4-20 UNC	1099	Verified	M&T 3
40	C5	∇ 0.500 \pm .01	11148-08	.500/.510	M&T 3
41	C5	2X 4.125	CMM	2X 4.125/4.126	M&T 3
42	C5	3.125		3.125	M&T 3
43	C5	2X 4.125		2X 4.125/4.126	M&T 3
44	C5	3.125 \pm .01		3.125	M&T 3
45	C5	R 11.000 \pm .01		R 11.000	M&T 3
46	B6	56.250 \pm .5		56.250	M&T 3
47	B5	8X ϕ 0.397 \pm .01	G-PIN	8X ϕ .397/.398	M&T 3
48	B5	∇ 0.625 \pm .01	11148-08	ϕ .625	M&T 3
49	B5	∇ 0.250 \pm .01	11148-08	.250/.260	M&T 3
50	B5	N/A		N/A	M&T 3
51	B5	ϕ 0.003 A/B	CMM	.0004/.0015	M&T 3
52	B5	48X ϕ 0.201 \pm .01	G-PIN	48X ϕ .201/ ϕ .202	M&T 3

JOB NO. 26671 PART NO. SEDM-S-S01

INSPECTION REPORT

PAGE 4 OF 7

NO.	B/P ZONE OR ITEM	B/P DIM. & TOL.	SET UP/TOOL	ACTUAL DIMENSION	ACCEPT / REJECT
	SHT 1				
53	B5	0.650 \pm 0.01	11148-08	.650 / .660	M&T 3
54	B5	1/4-20 UNC	1099	verified	M&T 3
55	B5	0.500 \pm 0.01	11148-08	.500 / .507	M&T 3
56	B5	1.014 A/B/C	CMM	.004 / .0075	M&T 3
57	B5	0.788		.787	M&T 3
58	B5	1.551		1.552	M&T 3
59	B5	1.559		1.560	M&T 3
60	A5	2.444		2.445	M&T 3
61	A6	2.911		2.911	M&T 3
62	A6	3.125		3.125	M&T 3
63	A6	3.805		3.806	M&T 3
64	A6	2X 6.320		2X 6.321	M&T 3
65	A6	2X 7.648		2X 7.649	M&T 3
66	A6	2X 8.313		2X 8.314	M&T 3
67	A6	3.125		3.125	M&T 3
68	A6	3.391		3.392	M&T 3
69	A6	4.342		4.343	M&T 3
70	A6	4.604		4.604	M&T 3
71	A6	6.195		6.195	M&T 3
72	A6	2X 6.320		2X 6.321	M&T 3
73	A6	6.438		6.439	M&T 3
74	A6	6.472		6.473	M&T 3
75	A6	2X 7.648		2X 7.649	M&T 3
76	A6	8.055		8.056	M&T 3
77	A6	8.198		8.199	M&T 3
78	A6	2X 8.313		2X 8.313	M&T 3
79	A7	2.625		2.625	M&T 3
80	A7	2.112		2.112	M&T 3
81	A7	1.977		1.977	M&T 3
82	A7	1.230		1.230	M&T 3
83	B7	0.887	CMM	.888	M&T 3

JOB NO. 26671 PART NO. SEDM-S-S01

INSPECTION REPORT

PAGE 5 OF 7

NO.	B/P ZONE OR ITEM	B/P DIM. & TOL.	SET UP/TOOL	ACTUAL DIMENSION	ACCEPT / REJECT
	SHT1				
84	B7	0.154	CMM	.153	M&T 3
85	B7	2.512		2.513	M&T 3
86	B7	1.379		1.380	M&T 3
87	C7	3.054		3.054	M&T 3
88	C7	3.082		3.083	M&T 3
89	C7	3.125		3.125	M&T 3
90	C7	5.062		5.063	M&T 3
91	C7	5.546		5.546	M&T 3
92	C7	6.450		6.451	M&T 3
93	C7	6.733		6.734	M&T 3
94	C7	7.692		7.693	M&T 3
95	C7	2X 8.889		2X 8.889 / 8.890	M&T 3
96	C7	9.611		9.612	M&T 3
97	C8	10.739		10.740	M&T 3
98	C8	11.023		11.024	M&T 3
99	C8	11.274		11.275	M&T 3
100	C8	2X 12.458		2X 12.459	M&T 3
101	B8	13.253		13.254	M&T 3
102	B8	13.865		13.866	M&T 3
103	B8	2X 15.819		2X 15.820	M&T 3
104	B8	15.922		15.924	M&T 3
105	B8	18.241		18.243	M&T 3
106	C7	2X 3.168		2X 3.168	M&T 3
107	C8	3.984 +/- .01		3.985	M&T 3
108	C8	5.027 +/- .01		5.028	M&T 3
109	C8	5.077		5.078	M&T 3
110	C8	5.079		5.080	M&T 3
111	C8	5.914 +/- .01		5.915	M&T 3
112	C8	6.378 +/- .01		6.379	M&T 3
113	C8	2X 6.783		2X 6.783 / 6.784	M&T 3
114	C8	8.005	CMM	8.005	M&T 3

JOB NO. 26671 PART NO. SEDM-S-501

INSPECTION REPORT

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NO.	B/P ZONE OR ITEM	B/P DIM. & TOL.	SET UP/TOOL	ACTUAL DIMENSION	ACCEPT / REJECT
	SHT1				
115	C8	2X 8.889	CMM	2X 8.889/8.890	M&T 3
116	C8	2X 11.283		2X 11.283/11.284	M&T 3
117	C8	2X 12.458		2X 12.457/12.458	M&T 3
118	C8	13.411		13.412	M&T 3
119	C8	15.212		15.212	M&T 3
120	C8	15.798		15.799	M&T 3
121	C8	2X 15.819		2X 15.820	M&T 3
122	C8	16.305		16.306	M&T 3
123	C8	17.901	CMM	17.902	M&T 3
124	E3	Ø 0.313 +/- .01	G-PIN	Ø .313	M&T 3
125	E3	1.000 +/- .01	11148-08	1.000 / 1.007	M&T 3
126	E3	3/8-16 UNC	1248	Verified	M&T 3
127	E3	Ø 0.750 +/- .01	11148-08	.750 / .758	M&T 3
128	D4	1.322 +/- .01		1.323	M&T 3
129	D4	0.322 +/- .01		.323	M&T 3
130	C4	Ø 0.313 +/- .01	G-PIN	.313	M&T 3
131	C4	1.940 +/- .01	11148-08	940 / 947	M&T 3
132	C4	3/8-16 UNC	1248	Verified	M&T 3
133	C4	1.750 +/- .01	11148-08	.750 / .755	M&T 3
134	C4	Ø .014 A B C	CMM	.005 / .0075	M&T 3
135	B4	1.005		.0005 / .001	M&T 3
136	B5	Ø .005 A B C		.0003 / .0009	M&T 3
137	D3	2X 5.239		2X 5.238 / 5.239	M&T 3
138	D3	2X 5.239		2X 5.238 / 5.239	M&T 3
139	D3	2X 2.000		2X 2.000	M&T 3
140	D3	2X 2.000		2X 2.000	M&T 3
141	D2	4X Ø 0.201 +/- .01	G-PIN	4X Ø .201	M&T 3
142	D2	1.380 +/- .01	11148-08	.381 / .388	M&T 3
143	D2	1/4-20 UNC-2B	1099	Verified	M&T 3
144	D2	1.500 +/- .01	11148-08	.500 / .506	M&T 3
145	D2	Ø .014 A B C	11148-08	.0045 / .0075	M&T 3

JOB NO. 26671 PART NO. SEDM-S-501

INSPECTION REPORT

PAGE 7 OF 7

NO.	B/P ZONE OR ITEM	B/P DIM. & TOL.	SET UP/TOOL	ACTUAL DIMENSION	ACCEPT / REJECT
	SHT1				
146	C2	2X 18.375	CMM	2X 18.375/18.376	M&T
147	C2	2X 19.625		2X 19.624/19.625	M&T
148	C2	$\phi 4.250 \pm .01$		$\phi 4.244$	M&T
149	C2	1.002/A	CMM	.0005	M&T
150	B2	8X $\phi 0.266 \pm .01$	G-PIN	8X $\phi .266$	M&T
151	B2	1.500 $\pm .01$	CMM	.499	M&T
152	B2	$\pm 0.38 \pm .01$	11148-08	.710	M&T
153	B2	$\phi .014$ A/B/C	CMM	.005/.007	M&T
154	C3	2X 60.00°		2X 60.00°	M&T
156	B4	2X 19.625		2X 19.625/19.626	M&T
157	B4	2X 18.375	CMM	2X 18.375	M&T
158	C4	8X $\phi .344 \pm .01$	G-PIN	8X $\phi .344$	M&T
159	C4	$\phi .531 \pm .01$	G-PIN	$\phi .530/.531$	M&T
160	C4	$\pm .889 \pm .01$	11148-08	.950/.960	M&T
161	C4	$\phi .014$ A/B/C	CMM	.0045/.0075	M&T
162	A3	$\phi .313 \pm .01$	G-PIN	$\phi .313$	M&T
163	A3	$\pm 1.060 \pm .01$	11148-08	1.060/1.066	M&T
164	A3	3/8-16 UNC	1248	Verified	M&T
165	A3	$\pm .750 \pm .01$	11148-08	.750/.760	M&T
166	A3	$\phi .014$ A/B/C	CMM	.005/.0075	M&T
167	A2	1.884	CMM	.884	M&T
168	C1	$\phi .313 \pm .01$	G-PIN	$\phi .313$	M&T
169	C1	$\pm .940 \pm .01$	11148-08	.940/.947	M&T
170	C1	3/8-16 UNC	1248	Verified	M&T
171	C1	$\pm .750 \pm .01$	11148-08	.750/.760	M&T
172	B1	$\phi .014$ A/B/C	CMM	.0035/.008	M&T
173	B1	1.884		.884	M&T
174	C1	.063 $\pm .01$.064	M&T
175	D1	.030 $\pm .01$	CMM	.030	M&T
176	E2	.884 $\pm .01$	CMM	.885	M&T