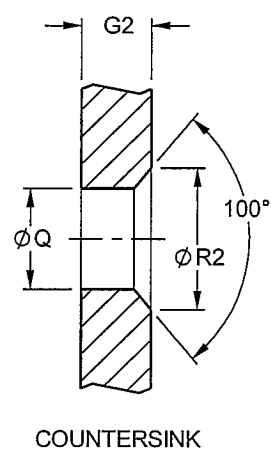
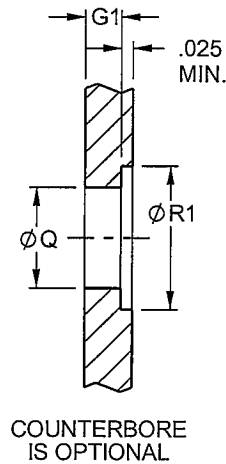
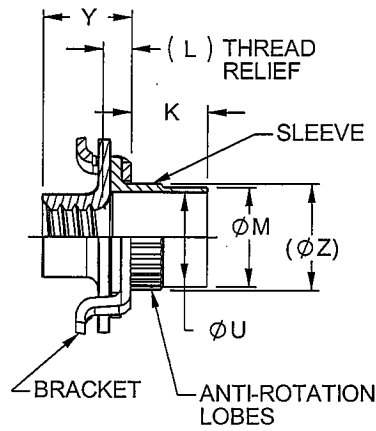
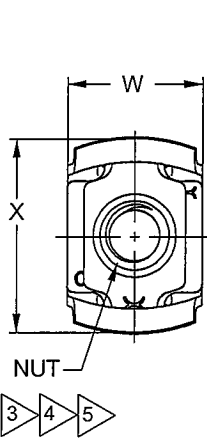


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**Red Ink Indicates**  
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REV **V**  
**S-1164**  
 DRAWING NO.

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**ASSEMBLY BEFORE MOUNTING**

**PANEL PREPARATION**

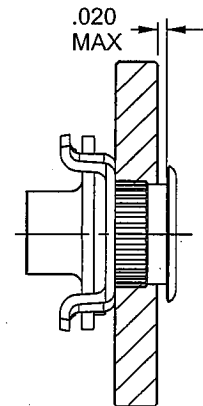
THREAD SIZE CODE	(L)	ØM MAX	ØQ		ØR1	ØR2	ØU	W	X	Y	(ØZ)
			SOFT	HARD							
4, 6	.062	.217	.218	.218	.312	.307	.192	.295	.420	.192	.228
8, 10	.068	.270	.272	.281	.375	.370	.245	.390	.572	.220	.294
12	.089	.335	.339	.348	.515	.437	.310	.450	.650	.303	.363

**PART NUMBER CALLOUT**

**FHT 6010 ( )-( )-( )**

MODEL  
 SERIES

GRIP CODE	G1	G2	K
AA	N/A	.055 - .073	.073
A	.031 - .062	.074 - .106	.099
B	.063 - .094	.107 - .133	.130
C	.095 - .125	.134 - .165	.161
D	.126 - .156	.166 - .196	.192
E	.157 - .187	.197 - .227	.223
F	.188 - .218	.228 - .258	.254
G	.219 - .250	.259 - .289	.285
H	.251 - .281	.290 - .320	.316
J	.282 - .312	.321 - .351	.347
K	.313 - .343	.352 - .382	.378
L	.344 - .374	.383 - .413	.409



**PROTRUDING ASSEMBLY AFTER MOUNTING**

CODE	NUT TYPE
L	LOCKING
NL	NONLOCKING

THREAD SIZE CODE	THREAD SIZE PER SAE-AS-8879	LEAD	LB/100	THREAD SIZE CODE	THREAD SIZE PER SAE-AS-8879	LEAD	LB/100
4	.112-40 UNJC-3B	SINGLE	.131	4F	.112-40 UNJC-3B	DOUBLE	.131
6	.138-32 UNJC-3B		.140	6F	.138-32 UNJC-3B		
8	.164-32 UNJC-3B		.365	10D	.190-32 UNJF-3B		
10	.190-32 UNJF-3B		.370	8F	.164-32 UNJC-3B	QUAD	.365
12	.250-28 UNJF-3B		.682	10F	.190-32 UNJF-3B		
10C	.190-24 UNJC-3B		.370	12F	.250-28 UNJF-3B		
12C	.250-20 UNJC-3B		.682				.682

V	DCN 6678	06-25-08
REV	DESCRIPTION/EC NO.	DATE
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES		
TOLERANCE UNLESS OTHERWISE NOTED:		
X	= ±.05	ANGLES ±0.5°
XX	= ±.02	
XXX	= ±.015	

**Alcoa Fastening Systems**  
**AEROSPACE FASTENER DIVISION**  
 3724 EAST COLUMBIA STREET  
 TUCSON, ARIZONA 85714  
 PHONE 520 519-7400  
 FAX 520 519-7427  
 www.huckaerospace.com

TITLE <b>NUT PLATE, CRES, HIGH TEMPERATURE (800° F), RIVETLESS, FLOATING, SILVER PLATE FINISH</b>			
DATE 10/11/2005	PART NO. <b>FHT6010</b>		
DRAWN JLS	DRAWING NO. <b>S-1164</b>		
CHECK <i>[Signature]</i>	CAGE CODE 0HDW7	REV <b>V</b>	
APPROVE	SCALE: 2.5:1	SHEET 1 OF 4	

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REV **V**  
 DRAWING NO. **S-1164**

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**MATERIAL:**  
 SLEEVE: CRES PER AMS 5639 (304) OR AMS 5514 (305)  
 NUT: A-286 CRES PER AMS 5525, H.T. TO 160 KSI  
 MIN ULTIMATE TENSILE STRENGTH  
 BRACKET: 17-7PH CRES PER AMS 5528, H.T. TO 180 KSI  
 MIN ULTIMATE TENSILE STRENGTH

**FINISH:**  
 SLEEVE & BRACKET: PASSIVATE PER AMS QQ-P-35  
 NUT: SILVER PLATE PER AMS 2411 AND AMS QQ-S-365,  
 TYPE 1, GRADE B. THICKNESS: .0003 MIN.

**NOTES:**

- 1 "AA" GRIP RECOMMENDED PANEL PREPARATION:  
 SIZES 12, 12F, 12C NOT RECOMMENDED FOR LESS THAN .060 THICKNESSES  
 SIZES 8, 8F, 10, 10F, 10C, 10D C'SINK - "Q" DIMENSION .276-.281, "R2" DIMENSION .343  
 SIZES 4, 4F, 6, 6F, C'SINK - "R2" DIMENSION .275
- 2 SOFT - DIMENSION FOR SOFT ALUMINUM ALLOYS & PLASTICS  
 HARD - DIMENSION FOR HARD ALUMINUM ALLOYS & STEEL  
 (SEE PCD 160012 FOR MORE DETAILS)
- 3 A MINIMUM OF TWO THREADS ARE DEFORMED TO PRODUCE SELF-LOCKING  
 ACTION PER NASM25027 WHEN LOCKING FEATURE IS REQUIRED.
- 4 NUT ELEMENT HAS .060 TOTAL RADIAL FLOAT FOR GRIP LENGTHS "AA"  
 THRU "C" AND .046 MIN. FOR GRIP LENGTHS GREATER THAN "C".
- 5 FOR NUT ELEMENT REPLACEMENT P/N SEE DWG. S-0877.
- 6 NUT ELEMENT REMOVAL TOOL AVAILABLE, P/N RB 6527.
- 7 NUT ELEMENT COLOR CODE: (PCD 160147)  
 NONE - LOCKING STANDARD THREADS  
 GREEN - NONLOCKING STANDARD THREADS  
 YELLOW - COARSE THREADS  
 ORANGE - FAST LEAD THREADS
- 8 TO OBTAIN ADDITIONAL WEIGHTS ADD INCREMENTS OF .010 PER LETTER CODE FOR 4, 4F, 6, 6F;  
 .020 FOR 8, 8F, 10, 10F, 10C, 10D, 12, 12F, 12C.
- 9 COMPLETE TOOL ASSEMBLY INCLUDES NOSÉ PIECE, PULLER, & HANDLE. "N" DESIGNATES  
 COUNTERBORE AND "S" DESIGNATES COUNTERSINK APPLICATIONS.
- 10 FOR HIGH VOLUME INSTALLATION RATES, ALTERNATE POWER TOOLING IS AVAILABLE.  
 PLEASE CONTACT AFS INSTALLATION SYSTEMS FOR MORE INFORMATION.
- 11 FOR THREAD SIZES 8, 10, 12, THREADS ARE CUT.

HAND INSTALLATION TOOL SELECTION TABLE					
9	COMPLETE HAND TOOL ASSEMBLY		PULLER	NOSÉ PIECE	
	C'BORE	C'SINK		C'BORE	C'SINK
		DCBT8600(-)	DCST8600(-)	DTP86230(-)	DCBN86130(-)

**INSTALLATION TOOLS:**

ARBOR PRESS TOOL HW ( \* ) 7659(-)  
 ANVIL HW ( \* ) 7658(-)  
 FORMER HW ( \* ) 7657(-)

( ) = THREAD SIZE CODE

\* "N" DESIGNATES C'BORE  
 "S" DESIGNATES C'SINK

**HAND INSTALLATION TOOLS:**

NOSÉ PIECE  
 PULLER  
 HANDLE ASSEMBLY TA7533

V	DCN 6678	06-25-08
REV	DESCRIPTION/EC NO.	DATE
UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES		
TOLERANCE UNLESS OTHERWISE NOTED: X = ±.05      ANGLES ±0.5° XX = ±.02 XXX = ±.015		

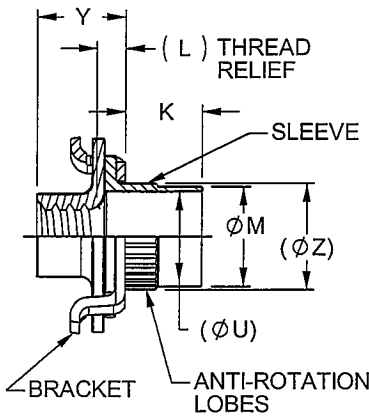
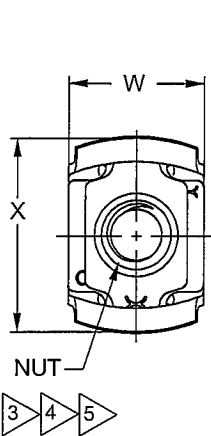
  
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**ALCOA**

**AEROSPACE FASTENER DIVISION**  
 3724 EAST COLUMBIA STREET  
 TUCSON, ARIZONA 85714  
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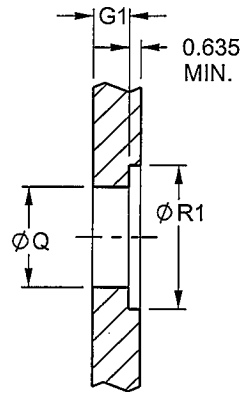
<b>TITLE</b> NUT PLATE, CRES, HIGH TEMPERATURE (800° F), RIVETLESS, FLOATING, SILVER PLATE FINISH			
DATE	10/11/2005	PART NO.	<b>FHT6010</b>
DRAWN	JLS	DRAWING NO.	<b>S-1164</b>
CHECK	<i>[Signature]</i>	CAGE CODE	0HDW7
APPROVE	<i>[Signature]</i>	REV	<b>V</b>
SCALE: 2:1		SHEET 2 OF 4	

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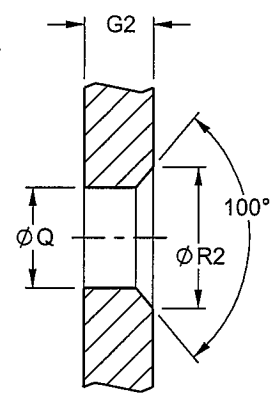
REV **V**  
DRAWING NO. **S-1164**



**ASSEMBLY BEFORE MOUNTING**



COUNTERBORE IS OPTIONAL



COUNTERSINK

**PANEL PREPARATION**

THREAD SIZE CODE	L ±0.254	Ø M MAX	Ø Q +0.508 -0.025		Ø R1 +0.508 -0.00	Ø R2 ±0.127	Ø U ±0.127	W	X	Y ±0.635	(Ø Z)
			SOFT	HARD							
M3, M3.5,	1.57	5.11	5.54	5.54	7.92	7.80	4.88	7.49	10.67	4.80	5.79
M4, M5	1.73	6.86	6.91	7.14	9.53	9.40	6.22	9.91	14.53	6.22	7.47
M6	2.26	8.51	8.61	8.84	13.08	11.10	7.87	11.43	16.51	7.62	9.22

**PART NUMBER CALLOUT**

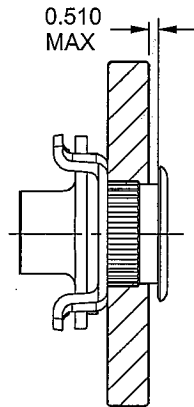
**FHT 6010 ( )-( )-( )**

MODEL  
SERIES

GRIP CODE	G1	G2	K
AA	N/A	1.40 - 1.85	1.85
A	0.79 - 1.57	1.88 - 2.69	2.51
B	1.60 - 2.39	2.72 - 3.38	3.30
C	2.41 - 3.18	3.40 - 4.19	4.09
D	3.20 - 3.96	4.22 - 4.98	4.88
E	3.99 - 4.75	5.00 - 5.77	5.66
F	4.78 - 5.54	5.79 - 6.55	6.45
G	5.56 - 6.35	6.58 - 7.34	7.24
H	6.38 - 7.14	7.37 - 8.13	8.03
J	7.16 - 7.92	8.15 - 8.92	8.81
K	7.95 - 8.71	8.94 - 9.70	9.60
L	8.74 - 9.50	9.72 - 10.49	10.39

CODE	NUT TYPE
L	LOCKING
NL	NONLOCKING

THREAD SIZE CODE	THREAD SIZE	LEAD	g/100
M3	MJ3 x 0.5-4H6H	METRIC	59
M3.5	MJ3.5 x 0.6-4H6H		64
M4	MJ4 x 0.7-4H6H		166
M5	MJ5 x 0.8-4H6H		168
M6	MJ6 x 1.0-4H6H		304



PROTRUDING  
**ASSEMBLY AFTER MOUNTING**

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V	DCN 6678	06-25-08
REV	DESCRIPTION/EC NO.	DATE

UNLESS OTHERWISE SPECIFIED  
ALL DIMENSIONS IN MILLIMETERS  
TOLERANCE UNLESS OTHERWISE NOTED:  
.X = ±1.25 ANGLES ±0°30'  
.XX = ±0.5  
.XXX = ±0.4



**Alcoa Fastening Systems**

AEROSPACE FASTENER DIVISION  
3724 EAST COLUMBIA STREET  
TUCSON, ARIZONA 85714  
PHONE 520 519-7400  
FAX 520 519-7427  
www.huckaerospace.com

TITLE **METRIC NUT PLATE, HIGH TEMPERATURE (800° F), RIVETLESS, FLOATING, SILVER PLATE FINISH**

DATE	10/11/2005	PART NO.	<b>FHT6010</b>
DRAWN	JLS	DRAWING NO.	<b>S-1164</b>
CHECK	<i>[Signature]</i>	CAGE CODE	0HDW7
APPROVE	<i>[Signature]</i>	REV	<b>V</b>
SCALE: 2.5:1		SHEET 3 OF 4	

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REV **V**  
 DRAWING NO. **S-1164**

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**MATERIAL:**

SLEEVE: CRES PER AMS 5639 (304) OR AMS 5514 (305)

NUT: A-286 CRES PER AMS 5525, H.T. TO 160 KSI MIN ULTIMATE TENSILE STRENGTH

BRACKET: 17-7PH CRES PER AMS 5528, H.T. TO 180 KSI MIN ULTIMATE TENSILE STRENGTH

**FINISH:**

SLEEVE & BRACKET: PASSIVATE PER AMS QQ-P-35  
 NUT: SILVER PLATE PER AMS 2411 AND AMS QQ-S-365,  
 TYPE 1, GRADE B. THICKNESS: .0003 MIN.

**NOTES:**

- 1 ▷ "AA" GRIP RECOMMENDED PANEL PREPARATION:  
 SIZES M6 NOT RECOMMENDED FOR LESS THAN 1.52 THICKNESS  
 SIZES M4, M5 - "Q" DIMENSION 7.01-7.14; "R2" DIMENSION 8.71.  
 SIZES M3, M3.5 C'SINK - "R2" DIMENSION 6.99.
- 2 ▷ SOFT - DIMENSION FOR SOFT ALUMINUM ALLOYS & PLASTICS  
 HARD - DIMENSION FOR HARD ALUMINUM ALLOYS & STEEL  
 (SEE PCD 160012 FOR MORE DETAILS)
- 3 ▷ A MINIMUM OF TWO THREADS ARE DEFORMED TO PRODUCE SELF-LOCKING ACTION  
 PER NASM25027 FOR SIMILAR INCH SIZE NUTPLATE WHEN LOCKING FEATURE IS REQUIRED.
- 4 ▷ NUT ELEMENT HAS 1.52 TOTAL RADIAL FLOAT FOR GRIP LENGTHS "AA" THRU "C" AND 1.17 MIN.  
 FOR GRIP LENGTHS GREATER THAN "C".
- 5 ▷ FOR NUT ELEMENT REPLACEMENT P/N SEE DWG. S-0877.
- 6 NUT ELEMENT REMOVAL TOOL AVAILABLE, P/N RB 6527
- 7 ▷ NUT ELEMENT COLOR CODE: (PCD 160147)  
 SKY BLUE - "MJ" METRIC THREADS.
- 8 ▷ TO OBTAIN ADDITIONAL WEIGHTS ADD INCREMENTS OF 5g PER LETTER CODE FOR M3, M3.5;  
 9g FOR M4, M5, M6.
- 9 ▷ COMPLETE TOOL ASSEMBLY INCLUDES NOSE PIECE, PULLER, & HANDLE. "N" DESIGNATES  
 COUNTERBORE AND "S" DESIGNATES COUNTERSINK APPLICATIONS.
- 10 FOR HIGH VOLUME INSTALLATION RATES, ALTERNATE POWER TOOLING IS AVAILABLE.  
 PLEASE CONTACT AFS INSTALLATION SYSTEMS FOR MORE INFORMATION.
- 11 ▷ 'MJ' THREADS PER ISO 5855/1, ISO 5855/2, OR ASME B1.21M.
- 12 ALL DIMENSIONS ARE IN MILLIMETERS.

HAND INSTALLATION TOOL SELECTION TABLE					
9 ▷	COMPLETE HAND TOOL ASSEMBLY		PULLER	NOSE PIECE	
	C'BORE	C'SINK		C'BORE	C'SINK
	DCBT8600(-)	DCST8600(-)	DTP86230(-)	DCBN86130(-)	DCSN86130(-)

**INSTALLATION TOOLS:**

ARBOR PRESS TOOL HW ( \* ) 7659(-)

ANVIL HW ( \* ) 7658(-)

FORMER HW ( \* ) 7657(-)

( ) = THREAD SIZE CODE

\* "N" DESIGNATES C'BORE  
 "S" DESIGNATES C'SINK

**HAND INSTALLATION TOOLS:**

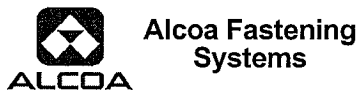
NOSE PIECE

PULLER

HANDLE ASSEMBLY TA7533

V	DCN 6678	06-25-08
REV	DESCRIPTION/EC NO.	DATE

UNLESS OTHERWISE SPECIFIED  
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TITLE <b>METRIC NUT PLATE, HIGH TEMPERATURE (800° F), RIVETLESS, FLOATING, SILVER PLATE FINISH</b>			
DATE	10/11/2005	PART NO.	<b>FHT6010</b>
DRAWN	JLS	DRAWING NO.	<b>S-1164</b>
CHECK	<i>[Signature]</i>	CAGE CODE	0HDW7
APPROVE	<i>[Signature]</i>	REV	<b>V</b>
SCALE: 2:1		SHEET 4 OF 4	