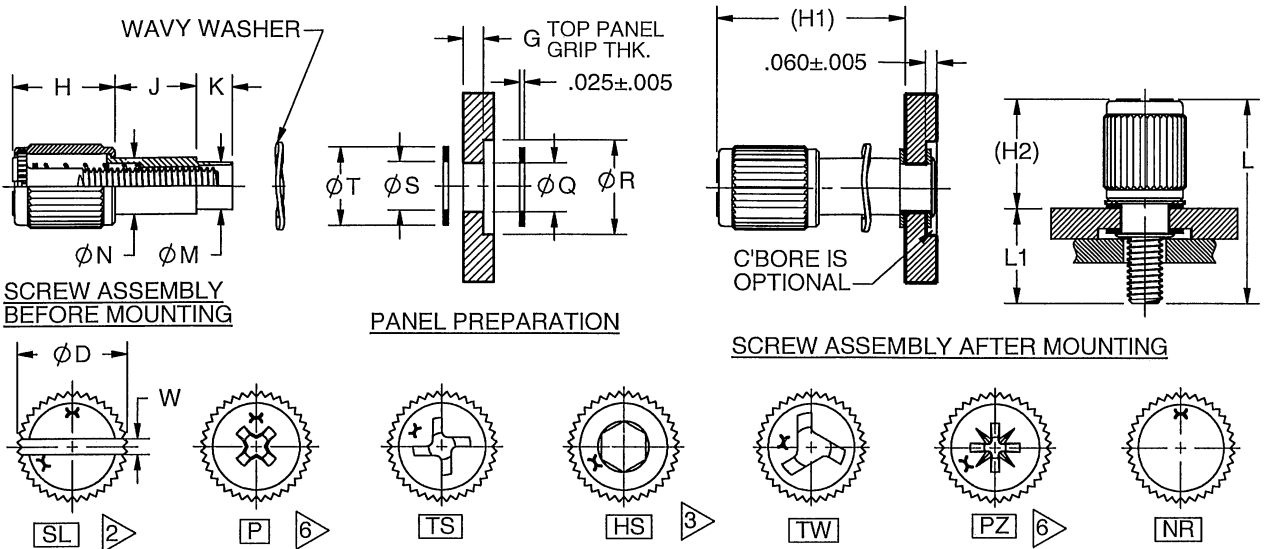
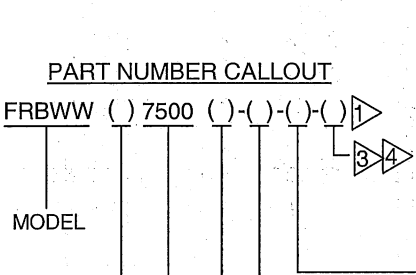


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REV **Y**  
**S-0673**  
 DRAWING NO.



THREAD SIZE CODE	Ø D	H		(H1)		(H2)		J	Ø M ±.005	Ø N ±.005	Ø Q +.004 - .001	Ø R	Ø S +.004 - .001	Ø T ±.010	W	RECESS SIZE			
		HS	P, PZ, SL, TS, TW, NR	HS	P, PZ, SL, TS, TW, NR	HS	P, PZ, SL, TS, TW, NR									P, PZ	TW	TS	HS
4, 4F, M3	.325	.444	.374	.746	.676	.493	.423	.265	.177	.206	.250	.390	.185	.309	.040	4	2	2	3/32
6, 6F, M3.5	.356	.449	.379	.764	.694	.509	.439	.280	.202	.241	.272	.406	.209	.333	.044	4	3	4	7/64
8, 8F, M4	.420	.559	.489	.986	.916	.618	.548	.385	.215	.258	.281	.468	.223	.385	.049	6	4	6	9/64
10, 10C, 10F, M5	.451	.599	.529	1.061	.991	.656	.586	.427	.250	.297	.316	.500	.257	.415	.055	8	5	8	5/32
12, 12C, 12F, M6	.531	.604	.534	1.066	.996	.651	.581	.428	.313	.371	.386	.578	.323	.495	.062	10	6	10	3/16



LENGTH CODE	4, 4F, M3		6, 6F, M3.5		8, 8F, M4		10, 10C, 10F, M5		12, 12C, 12F, M6	
	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1	L +.025 - .015	L1
1	.639	.216	.650	.211	.685	.137	.832	.246	.745	.164
2	.764	.341	.775	.336	.810	.262	.957	.371	.870	.289
3	.889	.466	.900	.461	.935	.387	1.082	.496	.995	.414
4	1.014	.591	1.025	.586	1.060	.512	1.207	.621	1.120	.539
5	1.139	.716	1.150	.711	1.185	.637	1.332	.746	1.245	.664

THREAD SIZE CODE	THREAD SIZE	LEAD	THREAD SIZE CODE	THREAD SIZE	LEAD	GRIP CODE	G (TOP PANEL GRIP THICKNESS)		K ±.005
							7	7	
4	.112-40 UNC-3A	SINGLE	8F	.164-32 UNC-3A	QUAD	A	.020-.031	.125	
6	.138-32 UNC-3A		10F	.190-32 UNF-3A		B	.032-.093	.187	
8	.164-32 UNC-3A		12F	.250-28 UNF-3A		C	.094-.155	.250	
10	.190-32 UNF-3A		M3	M3 x 0.5-4h6h		D	.156-.217	.312	
12	.250-28 UNF-3A		M3.5	M3.5 x 0.6-4h6h		E	.218-.279	.375	
10C	.190-24 UNC-3A		SINGLE (COARSE)	M4		M4 x 0.7-4h6h	F	.280-.341	.437
12C	.250-20 UNC-3A	M5		M5 x 0.8-4h6h					
4F	.112-40 UNC-3A	DOUBLE		M6	M6 x 1.0-4h6h				
6F	.138-32 UNC-3A								

MATERIAL CODE	WAVY WASHER MATERIAL
2	SPRING STEEL
3	17-7 PH
4	SPRING STEEL

RECESS CODE	DRIVING RECESS AND SPECIFICATION
	SLOT RECESS PER ANSI B18.6.3
HS	HEX SOCKET RECESS PER ANSI B18.3
NR	NO RECESS
P	CROSS RECESS PER NASM 9006
PZ	RECESS PER TYPE 1A ANSI B18.6.3
TS	RECESS PER NASM 33781
TW	RECESS PER NAS 4000

REV	DESCRIPTION/EC NO.	DATE
Y	DCN 4279	05-22-06

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**  
**TURN-LOC, HIGH PROFILE, OPTIONAL RECESS, ALUM KNOB .031 RADIAL FLOAT**

DATE	12/17/2003	PART NO.	FRBWW( )7500
DRAWN	JLS	DRAWING NO.	S-0673
CHECK	<i>[Signature]</i>	CAGE CODE	0HDW7
APPROVE	<i>[Signature]</i>	REV	Y
SCALE: 1:1		SHEET 1 OF 2	

THIS DRAWING, THE STRUCTURAL DESIGN DISCLOSED THEREIN, THE TECHNICAL DATA AND ENGINEERING SERVICE REPRESENTED THEREBY ARE THE EXCLUSIVE PROPERTY OF HUCK INTERNATIONAL, INC.

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**Red Ink Indicates**  
**Original Copy**

REV **Y**  
 DRAWING NO. **S-0673**

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AVAILABILITY TABLE																				
GRIP CODE	4, 6, M3, M3.5					8, M4					10, 10C, M5					12, 12C, M6				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
A																				
B						O										O				
C	O														O					
D	O					O	O								O					
E	O	O				O	O							O	O					
F	O	O	O			O	O	O						O	O					

ASSEMBLIES NOT AVAILABLE  
 FULLY RETRACTABLE ASSEMBLIES  
 ASSEMBLIES NOT FULLY RETRACTABLE (STUD WILL PROTRUDE BELOW MINIMUM TOP PANEL THICKNESS)

**MATERIAL**

STUD: HS, NR, P, PZ, & SLOT RECESSES  
 ALL SIZES - 302 CRES PER ASTM-A-493 OR AMS 5636

STUD: TS AND TW RECESSES  
 ALL SIZES - A-286 CRES PER AMS 5737, HEAT TREAT TO 160 KSI MIN. ULTIMATE TENSILE STRENGTH

KNOB & SLEEVE : 6061 ALUMINUM ALLOY PER AMS-QQ-A-225/8, OR AMS 4117, OR EQUIVALENT

SPRING: 302 CRES PER ASTM-A-313 OR AMS 5688

WAVY WASHER:  
 CODE:  
 2 & 4: SPRING STEEL PER AMS-QQ-S-700 OR EQUIVALENT  
 3: CRES PER AMS 5528, AMS 5529 OR EQUIVALENT

FLAT WASHER: 301 CRES PER AMS 5901 OR AMS 5519 OR EQUIVALENT

**FINISH**

STUD, SPRING & FLAT WASHERS: PASSIVATE PER AMS QQ-P-35

KNOB & SLEEVE: ANODIZE PER MIL-A-8625, TYPE II, CLASS I

WAVY WASHER:  
 CODE:  
 2: CAD PLATE PER AMS QQ-P-416, TYPE I, CLASS 2  
 3: PASSIVATE PER AMS QQ-P-35  
 4: CAD PLATE PER AMS QQ-P-416, TYPE II, CLASS 2

- NOTES:**
- 1 LETTERS AT THE END OF PART NUMBER DESIGNATE SPECIAL ASSEMBLIES:  
 DL - ASSEMBLIES WITH DRI LUBE THREADS PER MIL-PRF-46010  
 PL - ASSEMBLIES WITH PATCH LOCK PER MIL-DTL-18240
  - 2 NO CODE REQUIRED FOR SLOTTED HEADS
  - 3 WHEN USING THE HEX SOCKET CONFIGURATION, ADD .070 TO "L" LENGTH.
  - 4 FOR LONGER LENGTHS, ADD .125 INCREMENTS PER LENGTH CODE
  - 5 BLACK FINISH IS AN AVAILABLE OPTION. CONSULT AFS ENGINEERING DEPARTMENT
  - 6 CROSS RECESS IS ONE SIZE SMALLER THAN NOMINAL SIZE REQUIRED FOR 100° FLAT HEAD.
  - 7 -3A THREADS PER ASME B1.1. "M" THREADS PER ANSI/ASME B1.13M.

INSTALLATION TOOLS: ( ) INDICATES THREAD SIZE CODE

ARBOR PRESS TOOL HW7600-( ), NOSE PIECE HN7513-( ), REMOVAL ADAPTER TOOL FNR7505-( ),  
 PULLER HP7523-( ), HANDLE ASSEMBLY TA7533;  
 COMPLETE HAND TOOL ASSEMBLY: H8603-( ) - INCLUDES NOSE PIECE, PULLER & HANDLE

Y	DCN 4279	05-22-06	 <b>Alcoa Fastening Systems</b> AEROSPACE FASTENER DIVISION 3724 EAST COLUMBIA STREET TUCSON, ARIZONA 85714 PHONE 520 519-7400 FAX 520 519-7427 www.huckaerospace.com	TITLE <b>TURN-LOC, HIGH PROFILE, OPTIONAL RECESS, ALUM KNOB .031 RADIAL FLOAT</b>	
REV	DESCRIPTION/EC NO.	DATE		DATE 12/17/2003 DRAWN JLS CHECK <i>[Signature]</i> APPROVE	PART NO. <b>FRBWW( )7500</b> DRAWING NO. <b>S-0673</b> CAGE CODE 0HDW7 REV <b>Y</b>

UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS IN INCHES  
 TOLERANCE UNLESS OTHERWISE NOTED:  
 .X = ±.05      ANGLES ±0.5°  
 .XX = ±.02  
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