

## PROGRAM NAME:

Customer: An aerospace company  
 Part Name: XXXXXX XXXXXX XXXXXX  
 Part No.: XXXX035 XXXX036 XXXX037  
 Rev: A A A  
 Machine: HMC  
 Op Description: 020: RGH -A- -C- .06 STOCK  
 030: RGH OPP -A- .06 STOCK  
 040: FIN -A-, 3 SIDES  
 050: FIN OTHER 3 SIDES  
 060: FIN -A- DETAILS, .800 DIA

Tool No.	Description	Clear.	TLO No.	Length Offset	CDC No.	Dia Comp.	EDP No.	Supplier	Price	P/N	OPERATION
1	2.0 5 FLUTE FACE MILL	3.0								35,36,37	20,30
2	.750 2FLT. RGH END MILL 3.0LOC 5.25OAL	3.0					69064	WELDON	\$217.79	35,36,37	20,30
3	.875 DRILL	3.0								35,36,37	30,40 PILOT HOLES
4	11/16 DRILL	3.0								35,36,37	30 FINGER CLAMP HOLES
5	C .242 DRILL	1								35,36,37	30 .262 DIA SF FOR LOC
6	.2500 REAMER	1								35,36,37	30 .262 DIA SF FOR LOC
7	.750 X R.188 3FL END MILL 3.25LOC 5.OAL	2.575					58351	WELDON	\$226.40	35,36,37	40,50,60
8	.375 X R.01 4FL END MILL 2.0LOC 4.OAL	2.0					20560	GARR	\$36.01	35,36,37	40,50
9	5/16 .3125 DRILL TAP DRILL FOR 3/8-16	2.0								35,36,37	40 3/8-16 TAP DRILL
10	3/8-16 DRILL FOR .6255 BORE									35,36,37	40 DR. FOR .625 BORE
11	3/8-16 GUN TAP									35,36,37	40 TAP FOR OP 50 SHCS
12	.6255 BORING BAR									35,36,37	40 BORE FOR OP 50 LOC.
13	.375 BALL EM XTRA LEN 1.5LOC 6.OAL	2.575					55680	GARR	\$49.97	35,36,37	40,50
14	.750 X R.188 3FL EM RGH 3.25LOC 5.OAL	2.575					58351	WELDON	\$226.40	35,36,37	50,60
15	#13 .185 DRILL									35,36,37	50 .192 / .200
16	.1960 REAMER									35,36,37	50 .192 / .200
17	11/32 .3438 DRILL	3.0								35,36,37	50
18	N DRILL .302	4.5								35,36,37	50 .3095 / .3125
19	.3110 REAMER	4.5								35,36,37	50 .343 +/- .030
20	.750 DRILL									35,36,37	50,60
21	.250 CARB. STUB DRILL									35,36,37	50 .257 / .267
22	.750 X 90 CHAMFER MILL	.38					16292	MELIN CMG4-2424-90		35,36,37	50,60
23	.188 DRILL	1.25								35,36,37	50 .1900 +/- .010
24	.250 X R.010 4FL END MILL 1.0LOC 3.OAL	2.173					20270	GARR	\$23.61	35,36,37	50
25	3/32 .0938 CARB. DRILL	1.5								35,36,37	50 .101 / .105
26	.1030 REAMER									35,36,37	50 .101 / .105 .257 / .267
27	.0938XR.01 END MILL .375LOC 1.5OAL .75DIA X 1.0L EXT						79600	GARR	\$9.38		50
28	G .261 REAMER									35,36,37	50 .3095 / .3125
29	.375 X R.01 END MILL 1.0LOC 4.OAL						20490	GARR	\$36.01	36,37	50,60
30	.750 3FLT. FIN END MILL 3.0LOC 6.0OAL	3.0					33135	SGS		35,36,37	40,60 <a href="http://www.sgstool.com/catalogs/PDFsections/std_EM_XL.pdf">http://www.sgstool.com/catalogs/PDFsections/std_EM_XL.pdf</a>
31	.375 BALL EM XTRA LEN 1.5LOC 6.OAL	2.575					55680	GARR	\$49.97	35,36,37	40,50
32	.375 2FL BEM 1.0LOC 2.5OAL 1.5DIA EXTENSION 2.5 FR. TIP	1.186					59875	WELDON	\$31.39	35,36,37	50
33	1.675 x 37.5DEG BORING BAR TLO AT 1.675 DIA	2.54								35,36,37	60
34	#406 WOODRUFF .750 DIA X .125 FL									35,36,37	60
35	.750 X R.010 END MILL 2.25LOC 5.OAL	2.575					61664-010	NIAGRA	\$209.76	35,36,37	60 <a href="http://www.niagaracutter.com/solidcarbide/elite/alum_ss/a340_a345r.pdf">http://www.niagaracutter.com/solidcarbide/elite/alum_ss/a340_a345r.pdf</a>
36	23/64 .3594 DRILL									36	50
37	#13 .185 DRILL CLEAR OUT 1.0 X 3.25 EXTEN.	4.25								37	50 .192 / .200
38	.1960 REAMER CLEAR OUT 1.0 X 3.25 EXTEN.	4.25								37	50 .192 / .200
39	19/32 .5938 DRILL									36,37	60 .600 DET. L
40	.750 X R.030 END MILL 2.25LOC 5.OAL	2.575					61664-030	NIAGRA	\$209.76	36,37	60 <a href="http://www.niagaracutter.com/solidcarbide/elite/alum_ss/a340_a345r.pdf">http://www.niagaracutter.com/solidcarbide/elite/alum_ss/a340_a345r.pdf</a>
41	.047W X .750 DIA WOODRUFF .500 SHANK	2.033								36,37	60 DET. L GROOVE

## Note(s):

Supplier web sites: <http://www.garrtool.com> <http://www.endmills.com>

Fixture:

Programmed E Steve Heidtke

Date: 3/14/2008