A Aluminum Cutting Data

APPLICATION	GOOD	BETTER	BEST
BLOCK			
Single Pass		81-200	85-000
Roughing	49-000	81-200	81-700
Finishing		66-300	81-750
Slotting		52-000	81-200
Profile/Shape	63-600B	52-200B	81-600
SHEET			
Single Pass		49-000	63-600
EXTRUSION			
Single Pass		81-200	85-000

DEPTH OF CUT: 1 x D Use recommended chip load
2 x D Reduce chip load by 25%
3 x D Reduce chip load by 50%

CHIP LOAD PER TOOTH

Cutting Edge Diameter																	
Series	Cut	1/16	3/32	1/8	5/32	3/16	7/32	1/4	5/16	3/8	7/16	1/2	9/16	5/8	3/4	7/8	1
14-00**	1 x D											.004 - .006					
15-00**	1 x D											.004 - .006					
40-000*	1 x D			.005 - .007		.005 - .007		.006 - .008	.006 - .008	.007 - .009		.008 - .010					
40-100	1 x D			.001 - .003		.001 - .003		.002 - .004	.002 - .004	.003 - .005		.004 - .008			.006 - .008		
40-300*	1 x D			.001 - .003		.001 - .003		.002 - .004		.003 - .005		.004 - .008					
49-000	1 x D							.004 - .006	.004 - .006	.006 - .008							
52-000	1 x D			.003 - .005		.003 - .005		.004 - .006		.006 - .008		.010 - .012					
52-200B/BL	1 x D	.002 - .004		.003 - .005		.003 - .005		.004 - .006		.006 - .008		.010 - .012		.012 - .014	.014 - .016		
57-000*	1 x D			.003 - .005		.003 - .005		.004 - .006		.006 - .008		.010 - .012					
61-000	1 x D			.001 - .003		.002 - .005		.002 - .005		.003 - .007		.007 - .009					
62-000	1 x D			.006 - .008		.006 - .008		.007 - .009	.007 - .009	.008 - .010		.009 - .011					
62-400	1 x D			.006 - .008		.006 - .008		.007 - .009	.007 - .009								
62-600	1 x D	.002 - .004		.002 - .004		.003 - .006		.003 - .006	.003 - .006	.004 - .008		.008 - .010					
62-900	1 x D	.002 - .004		.002 - .004		.003 - .006		.003 - .006	.003 - .006	.004 - .008		.008 - .010					
63-000	1 x D			.006 - .008		.006 - .008		.007 - .009	.007 - .009	.008 - .010		.009 - .011					
63-400	1 x D			.006 - .008		.006 - .008		.007 - .009	.007 - .009								
63-600	1 x D	.002 - .004		.002 - .004		.003 - .006		.003 - .006	.003 - .006	.004 - .008		.008 - .010					
63-600B	1 x D	.002 - .004		.002 - .004		.003 - .006		.003 - .006		.004 - .006							
63-900	1 x D	.002 - .004		.002 - .004		.003 - .006		.003 - .006	.003 - .006	.004 - .008		.008 - .010					
64-000/ 65-000	1 x D	.002 - .004		.002 - .004		.003 - .006		.003 - .006		.004 - .008							
80-000	1 x D	.002 - .004		.002 - .004		.002 - .004		.004 - .006									
81-000	1 x D							.002 - .004	.002 - .004	.003 - .005							
81-100	1 x D								.002 - .005	.003 - .008		.003 - .008					
81-200	1 x D			.002 - .006		.002 - .010		.002 - .010	.002 - .010	.003 - .010		.003 - .015		.003 - .015	.005 - .020		
81-300	1 x D									.002 - .005		.003 - .006					
81-400	1 x D					.001 - .003		.002 - .004	.002 - .005	.002 - .006		.003 - .008					
81-500	1 x D							.002 - .010	.002 - .010	.003 - .010		.003 - .015		.003 - .015	.005 - .020		
81-600	1 x D							.003 - .006		.003 - .006		.004 - .008			.006 - .010		
81-700	1 x D							.002 - .004		.003 - .006		.003 - .006		.006 - .010	.010 - .012		.012 - .014
85-000	1 x D									.002 - .003		.002 - .004			.002 - .004		

* 16,000 RPM
** Aluminum Extrusion or Aluminum UAD Doors/Windos

NOTE: When cutting soft aluminum a squirt of cutting fluid every now and then will help to eliminate chip rewelding and improve surface finish

FORMULAS: Chip Load = Feed Rate / (RPM x # of cutting edges)
Feed Rate = RPM x # of cutting edges x chip load
Speed (RPM) = Feed Rate / (# of cutting edges x chip load)

Chipload Instructions and Example

Instructions	**Example**
1. Find the cutting data for the material being cut	63-625 selected to cut Aluminum
2. Find the series number of the selected tool under the series column	63-600 series
3. Move across until you find the cutting edge diameter of the tool	3/8” diameter tool
4. Note the chipload range.	.004” - .008” chipload range
	Feedrate = RPM x # of cutting edges x chipload. 18,000 x 1 x .004 = 72 IPM 18,000 x 1 x .008 = 144 IPM