SP Soft Plastic Cutting Data

SHEET - 1/2" DIAMETER

APPLICATION	GOOD	BETTER	BEST
Single Pass	61-000	61-000P	63-750
Roughing	60-900	81-700	60-000
Finishing		81-700	60-200

SHEET - 1/2" DIAMETER

APPLICATION	GOOD	BETTER	BEST
Single Pass		52-700	52-600
Roughing	82-100	81-700	60-000
Finishing		81-700	60-200

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	1 1/8	1 1/4	1 1/2	1 3/4	2
10-00	1 x D	.002 - .004		.004 - .006		.006 - .008		.006 - .010		.006 - .010		.008 - .012										
38-50/ 38-60	1 x D			.001 - .002		.002 - .004		.002 - .006		.002 - .006		.005 - .007		.006 - .008	.007 - .009							
39-00	1 x D																.006 - .008					
52-200B/BL	1 x D	.002 - .004		.002 - .004		.004 - .006		.004 - .006		.004 - .006		.006 - .008		.010 - .012	.012 - .014							
52-400	1 x D			.002 - .004		.003 - .005		.004 - .008		.004 - .008		.006 - .008		.007 - .009								
52-600	1 x D							.008 - .010		.010 - .012		.012 - .014		.014 - .016	.016 - .018							
52-700	1 x D											.012 - .014		.014 - .016	.016 - .018							
56-430	1 x D			.006 - .008		.006 - .008		.006 - .010		.006 - .010		.009 - .011										
56-600	1 x D			.004 - .006		.006 - .008		.008 - .010		.010 - .012		.012 - .014										
57-600	1 x D							.008 - .010		.010 - .012		.012 - .014		.014 - .016	.016 - .018							
60-000	1 x D									.004 - .006		.006 - .008		.008 - .012	.012 - .016							
60-200	1 x D							.004 - .006		.004 - .006		.006 - .010			.012 - .016							
60-470	1 x D							.004 - .006		.004 - .006		.006 - .010			.012 - .016							
60-900	1 x D									.004 - .006		.006 - .008										
61-000P	1 x D			.004 - .006		.006 - .008		.008 - .012		.014 - .018		.018 - .022										
61-400	1 x D			.017 - .019		.017 - .019		.017 - .021		.018 - .022		.020 - .021										
62-750	1 x D			.004 - .006		.006 - .008		.008 - .012		.008 - .012		.010 - .014										
62-850	1 x D			.004 - .006		.006 - .008		.008 - .012		.008 - .012		.010 - .014										
64-000 65-000	1 x D	.002 - .004		.004 - .006		.006 - .008		.008 - .012		.008 - .012												
63-750	1 x D	.002 - .004		.004 - .006		.006 - .008		.008 - .012		.008 - .012		.010 - .014										
63-850	1 x D	.002 - .004		.004 - .006		.006 - .008		.008 - .012		.008 - .012		.010 - .014										
81-700	1 x D							.002 - .004		.003 - .006		.003 - .006		.006 - .010	.010 - .012		.012 - .014					
82-100	1 x D																.003-.005		.004-.006	.007-.009*		

* = 12500 RPM

NOTE: To eliminate rewelding increase the feedrate or change to a single edge tool
If using a downcut spiral and chip rewelding occurs, cut a slot in your spoilboard to allow the chips a place to expand
Incorrect chiploads can lead to knife marks occurring

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 2. Find the series number of the selected tool under the series column 3. Move across until you find the cutting edge diameter of the tool 4. Note the chipload range.	63-775 selected to cut Soft Plastic 63-750 series 1/4” diameter tool .008” - .012” chipload range Feedrate = RPM x # of cutting edges x chipload. 18,000 x 1 x .008 = 144 IPM 18,000 x 1 x .012 = 216 IPM (RPM = tools are recommended to cut at 18,000 RPM but the customer can vary it based on their machine)