HP Hard Plastic Cutting Data

SHEET - 1/2" DIAMETER

APPLICATION	GOOD	BETTER	BEST
Single Pass	63-750	63-700	56-000P
Roughing	60-900	81-700	60-000
Finishing	81-700	60-200	75-000

SHEET - 1/2" DIAMETER

APPLICATION	GOOD	BETTER	BEST
Single Pass	52-700	52-600	56-000P
Roughing	82-100	81-700	60-000
Finishing	81-700	60-200	75-000

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	1 1/8	1 1/4	1 1/2	1 3/4	2
38-50/ 38-60	1 x D			.002 - .005		.002 - .005		.003 - .005		.004 - .006		.005 - .007		.006 - .008	.007 - .009							
39-00	1 x D																.003 - .005					
48-600DE	1 x D					.003 - .005		.004 - .006		.005 - .007		.006 - .008										
48-600SE	1 x D					.009 - .011		.010 - .012		.011 - .013		.012 - .014										
52-200B/BL	1 x D	.002 - .004		.002 - .004		.004 - .006		.004 - .006		.004 - .006		.006 - .008		.008 - .010	.010 - .012							
52-600	1 x D							.006 - .008		.008 - .010		.010 - .012		.012 - .014	.014 - .016							
56-000P	1 x D			.002 - .004		.004 - 006		.004 - .006		.006 - .008		.008 - .010										
56-430	1 x D			.005 - .007		.005 - .007		.006 - .008		.007 - .009		.008 - .010										
56-450	1 x D					.005 - .007		.006 - .008		.007 - .009		.008 - .010										
56-600	1 x D			.003 - .005		.005 - .007		.007 - .009		.009- .011		.011 - .013										
57-600	1 x D							.006 - .008		.008 - .010		.010 - .012		.012 - .014	.014 - .016							
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			.003 - .005		.005 - .007		.007 - .011		.013 - .017		.017 - .021										
61-400	1 x D			.014 - .016		.014 - .016		.015 - .017		.016 - .018		.017 - .019										
62-700	1 x D			.006 - .008		.008 - .010		.010 - .012		.010 - .012		.012 - .016										
62-750	1 x D			.004 - .006		.006 - .008		.008 - .012		.008 - .012		.010 - .014										
62-800	1 x D			.006 - .008		.008 - .010		.010 - .012		.010 - .012		.012 - .016										
62-850	1 x D			.004 - .006		.006 - .008		.008 - .012		.008 - .012		.010 - .014										
63-700	1 x D	.002 - .004		.006 - .008		.008 - .010		.010 - .012		.010 - .012		.012 - .016										
63-750	1 x D	.002 - .004		.004 - .006		.006 - .008		.008 - .012		.008 - .012		.010 - .014										
63-800	1 x D	.002 - .004		.006 - .008		.008 - .010		.010 - .012		.010 - .012		.012 - .016										
63-850	1 x D	.002 - .004		.004 - .006		.006 - .008		.008 - .012		.008 - .012												
64-000\ 65-000	1 x D	.002 - .004		.006 - .008		.008 - .010		.010 - .012		.010 - .012												
81-700	1 x D							.002 - .004		.003 - .006		.003 - .006		.006 - .010	.010 - .012		.012 - .014					
82-100	1 x D																.002 - .003		.007 - .015	.003 - .012		

NOTE: When chip rewelding occurs while cutting soft plastic, increase feedrate or go to a single edge tool. Incorrect chiploads can result in cratering

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.	56-122 selected to cut Hard Plastic 56-000P series 3/8” diameter tool .006” - .008” chipload range Feedrate = RPM x # of cutting edges x chipload. 18,000 x 2 x .006 = 216 IPM 18,000 x 2 x .008 = 288 IPM (RPM = tools are recommended to cut at 18,000 RPM but the customer can vary it based on their machine)