

# Specialty Tool Chiploads

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

Material: Foam

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	
12-00	1 x D			.0005 - .002		.0005 - .002		.001 - .003	.001 - .003	.002 - .004		.003 - .005		.004 - .006	.005 - .007		.006 - .008		.007 - .009				
13-50	1"											.015 - .017		.017 - .019									
40-550	1 x D											.004 - .006											
48-000	1 x D			.002 - .004		.002 - .004		.003 - .005	.003 - .005	.004 - .006		.005 - .007		.006 - .008	.007 - .009		.008 - .010		.009 - .011				.010 - .012
52-550	1 x D			.002 - .004		.002 - .004		.004 - .006	.004 - .006	.004 - .006													

Material: Wood

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	
37-50	1/2 CED					.003 - .006		.003 - .006		.003 - .006													
37-60	1/2 CED									.004 - .006		.004 - .006			.006 - .008		.008 - .010						
37-00/ 37-20	Varies							.004 - .006															

Material: Plastic

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	
37-50*	1 x D					.003 - .006		.003 - .006		.003 - .006													
37-60*	1 x D									.004 - .006		.004 - .006			.006 - .008		.008 - .010						
66-000	1 x D							.004 - .008		.004 - .008		.004 - .008											
66-200	1 x D							.004 - .006		.006 - .008													
66-250	1 x D							.004 - .006		.006 - .008													
66-300	1 x D			.002 - .004		.004 - .006		.004 - .006		.006 - .008		.006 - .008											
66-350	1 x D			.002 - .004		.004 - .006		.004 - .006		.006 - .008		.006 - .008											
75-000	1 x D									.001 - .002		.0005 - .002			.001 - .002		.001 - .002						
37-00/ 37-20	Varies							.004 - .006															

Material: Aluminum

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	
66-200	1 x D							.004 - .006		.006 - .008													
66-250	1 x D							.004 - .006		.006 - .008													
66-300	1 x D			.002 - .004		.004 - .006		.004 - .006		.006 - .008		.006 - .008											
66-350	1 x D			.002 - .004		.004 - .006		.004 - .006		.006 - .008		.006 - .008											
37-00/ 37-20	Varies							.004 - .006															

**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

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.

### Example

52-554 selected to cut Foam

52-550 series  
1/8" diameter tool  
.002" - .004" chipload range

Feedrate = RPM x # of cutting edges x chipload.

$18,000 \times 2 \times .004 = 72 \text{ IPM}$

$18,000 \times 2 \times .006 = 144 \text{ IPM}$