Router Bit Chip Load Chart

Please note that you will likely have good results up to .017 chip load. The optimal chip load is between .007 and .012 and is highlighted in green below. If there is too little of a chip load you risk burning out the tool, too high of a chip load and you risk breaking the tool. Below are charts for optimal chip load on two flute and three flute router bits taken from Southeast. You can also shop for Southeast Tool Router bits- rated excellent by Fine Woodworking Magazine.

For 2 Flute Router Bits:

Spindle RPM's in Thousands

Feed Rate (In. per min)	**10000**	**11000**	**12000**	**13000**	**14000**	**15000**	**16000**	**17000**	**18000**	**19000**
50	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.001	0.001
100	0.005	0.005	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003
150	0.008	0.007	0.006	0.006	0.005	0.005	0.005	0.004	0.004	0.004
200	0.010	0.009	0.008	0.008	0.007	0.007	0.006	0.006	0.006	0.005
250	0.013	0.011	0.010	0.010	0.009	0.008	0.008	0.007	0.007	0.007
300	0.015	0.014	0.013	0.012	0.011	0.010	0.009	0.009	0.008	0.008
350	0.018	0.016	0.015	0.013	0.013	0.012	0.011	0.010	0.010	0.009
400	0.020	0.018	0.017	0.015	0.014	0.013	0.013	0.012	0.011	0.011
450	0.023	0.020	0.019	0.017	0.016	0.015	0.014	0.013	0.013	0.013
500	0.025	0.023	0.021	0.019	0.018	0.017	0.016	0.015	0.014	0.014
550	0.028	0.025	0.023	0.021	0.020	0.018	0.017	0.016	0.015	0.015
600	0.030	0.027	0.025	0.023	0.021	0.020	0.019	0.018	0.017	0.017

For 3 Flute Router Bits:

Spindle RPM's in Thousands

Feed Rate (In per min)	**12000**	**13000**	**14000**	**14500**	**15000**	**16000**	**17000**	**18000**	**18500**	**19000**
100	0.003	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
150	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.003	0.003
200	0.006	0.005	0.005	0.005	0.004	0.004	0.004	0.004	0.004	0.004
250	0.007	0.006	0.006	0.006	0.006	0.005	0.005	0.005	0.005	0.004
300	0.008	0.008	0.007	0.007	0.007	0.006	0.006	0.006	0.005	0.005
350	0.010	0.009	0.008	0.008	0.008	0.007	0.007	0.006	0.006	0.006
400	0.011	0.010	0.010	0.009	0.009	0.008	0.008	0.007	0.007	0.007
450	0.013	0.012	0.011	0.010	0.010	0.009	0.009	0.008	0.008	0.008
500	0.014	0.013	0.012	0.011	0.011	0.010	0.010	0.009	0.009	0.009
550	0.015	0.014	0.013	0.013	0.012	0.011	0.011	0.010	0.010	0.010
600	0.017	0.015	0.014	0.014	0.013	0.013	0.012	0.011	0.011	0.011
650	0.018	0.017	0.015	0.015	0.014	0.014	0.013	0.012	0.012	0.012
700	0.019	0.018	0.017	0.016	0.016	0.015	0.014	0.013	0.013	0.013