



ROUTER FEED CHART - Wood, Wood Products, Metal Doors

These feed rates are in inches per minute and are only guidelines. Actual speed & feed rates will depend on individual equipment and goals. Generally, the faster a bit is fed, the longer the edges will last. For maximum life, start at a "safe" rate, then push feed rate until either finish is undesirable, or tool is risking breakage. Other factors that affect feed rate are:

- 1. Rigidity of Set Up - Vibration is a major source of tool wear and poor finish Adjust feed rate to minimize vibration. Often a faster rate can improve finishes.

- 2. Router Environment - Other variables that affect every routing application are spindle horsepower, rigidity and runout, collet-condition, clamping system and tool sharpness. Adjust feed rate to achieve desired finish.

- 3. Spindle Speed - Adjust feed rate chart on a linear basis relative to 18,000 spindle RPM (If spindle is 20,000 RPM increase feed rate by approx. 10%. If spindle is 14,500 RPM reduce feed rate by approx. 20%.)

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Finish - Find the fastest feed rate that will enable you to obtain satisfactory finish for best tool life.

Routing Formulas:

Chip Load = Feed Rate/(RPM x # cutting edges)

Feed Rate = RPM x # cutting edges x chip load

Speed (RPM) = Feed Rate /(# cutting edges x chip load)

NOTE - This router bit selection guide indicates the most popular tool series used for cutting the material indicated. Your specific requirements may vary so be certain to examine other alternatives in the section to which you are directed by the selection guide.

Should you have further questions do not hesitate to call Onsrud Cutter at (847) 362-1560 for assistance. For additional tool selection assistance - www.onsrud.com

Table with columns: TOOL SERIES, DESCRIPTION, CED, DEPTH OF CUT, SPINDLE SPEED, SOFT NATURAL WOOD, HARD NATURAL WOOD, SOFT PLYWOOD, HARD PLYWOOD, MDF, LAMINATED CHIPBOARD, LAMINATED PLYWOOD, METAL DOOR FOAM CORE. Rows include various tool series like 10-00, 12-00, 12-80, etc.

\*Depth of Cut = 1/2 CED Contact Onsrud Cutter for specific feeds & speeds: 16-50, 52-200B, 52-200BL Hand-fed: 28-50, 28-60, 29-00, 29-50, 31-00, 35-00, 35-50, 36-00, 36-50, 41-00, 41-50, 42-00, 42-50, 42-75, 43-00, 43-50, 43-60, 43-75, 44-00, 45-75, 46-60, 90-00

- See General Guidelines for Tool Material and Geometry on Page 61

