

# CNC Router Bit Feed Rate Info

The following charts give you the **recommended** feed rates for working with different spiral family groups on different wood types, plastics & aluminium. Because of the dependency which we have between the cutting conditions and the non-uniformity of the wood pieces, it is important to understand that these values are only recommendations. Wood fiber direction, wood type, wood humidity, clamping stiffness, machine stiffness, etc., all these variables together or one by one can change the cutting condition. It is recommended that in any new application, you reach the recommended feed rate gradually and if the cutting quality is OK, you can continue to increase the feed rate values. Please remember, the larger your chip per tip (high feed rate) the lifetime of the tool is increased.

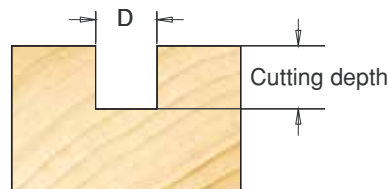
## Explanation of the charts

Each chart is relating to one type of the different tool families on a different type of wood. Each line on a chart is relating to the cutting diameter of the tool. If you cannot find the exact diameter, please relate it as a parallel line to the existing lines.

The information on the charts require a rotation speed of 18,000 RPM. Changing the rotation speed has a proportionally straight relation to the feed rate. For example, if your tool is rotating at 12,000 RPM you have to decrease the feed rate by the relation of 12,000/18,000. Cutting depth or wood thickness is given with values which relate to the diameter. For example, cutting diameter is 10mm and wood thickness is 20mm so it becomes a cutting depth of 2xD.

## How to get a feed rate value from the chart

1. Choose the correct chart according to the tool family and the wood type.
2. Locate your line on the chart according to diameter size.
3. Evaluate your cutting depth according to the cutting diameter - is it equal to 1xD or 2xD or 1.5xD, etc.
4. Find the right feed rate according to the wood thickness on the chart.

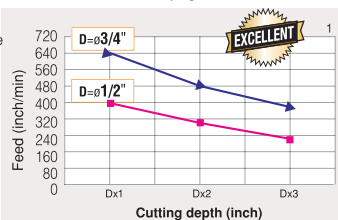
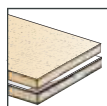


### Solid Carbide Spiral W/Chipbreaker

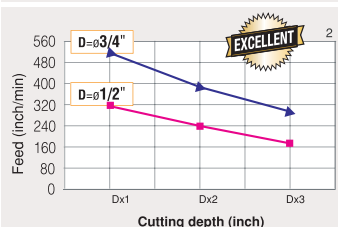
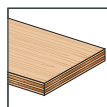


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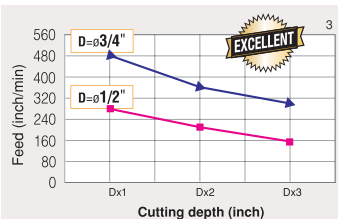
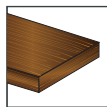
particle boards  
laminates/unlaminates



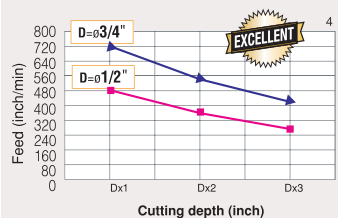
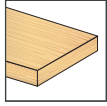
plywood laminates/  
unlaminates



hardwood



softwood



### Solid Carbide Spiral Flute Plunge



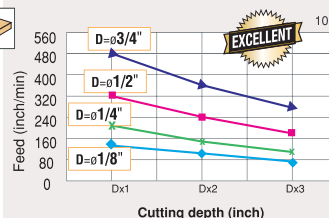
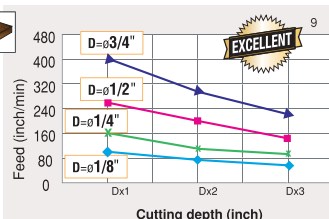
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**NOT RECOMMENDED**  
Amana Tool® doesn't recommend using the Solid Carbide Spiral Flute Plunge router bit on Particle Boards.



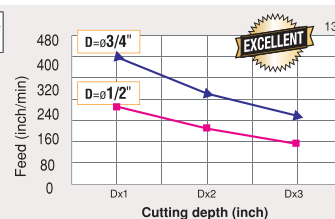
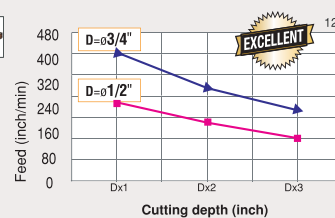
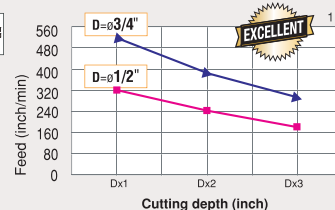
**NOT RECOMMENDED**  
Amana Tool® doesn't recommend using the Solid Carbide Spiral Flute Plunge router bit on Plywood.



### Spiral Flute Plunge Solid Carbide



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**NOT RECOMMENDED**  
Amana Tool® doesn't recommend using the Spiral Flute Plunge Solid Carbide router bit on Softwood

# CNC Router Bit Feed Rate Info

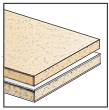


## Solid Carbide Spiral Roughing W/Chipbreaker



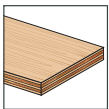
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particle boards  
laminates / unlaminates



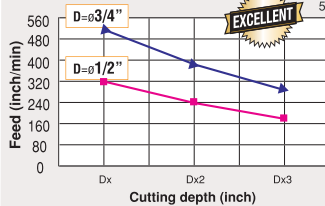
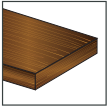
Amana Tool® doesn't recommend using the Solid Carbide Spiral Roughing with Chipbreaker router bit on Particle Boards.

plywood laminates/  
unlaminates

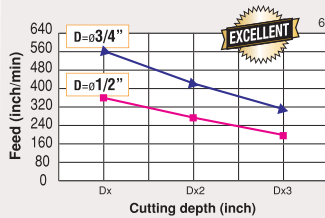
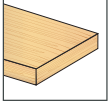


Amana Tool® doesn't recommend using the Solid Carbide Spiral Roughing with Chipbreaker router bit on Plywood.

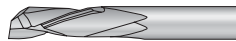
hardwood



softwood



## Compression Spiral for Solid Wood



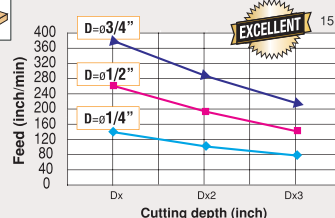
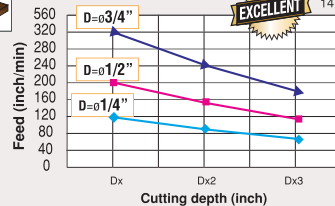
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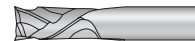
Amana Tool® doesn't recommend using the Compression Spiral for Solid Wood router bit on Particle Boards.



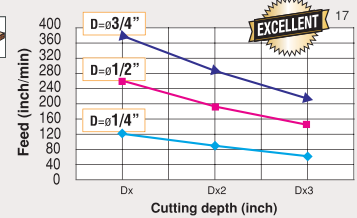
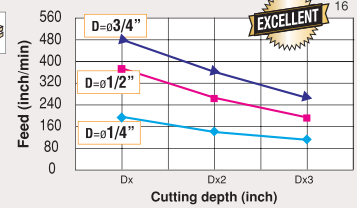
Amana Tool® doesn't recommend using the Compression Spiral for Solid Wood router bit on Plywood.



## Compression Spiral for MDF/Laminate



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Amana Tool® doesn't recommend using the Compression Spiral MDF/Laminate router bit on Hardwood.



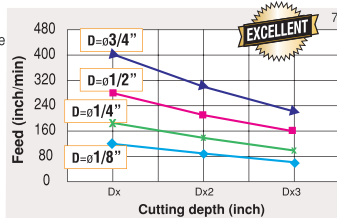
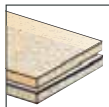
Amana Tool® doesn't recommend using the Compression Spiral MDF/Laminate router bit on Softwood.

## Spiral Flute Plunge for Solid Wood

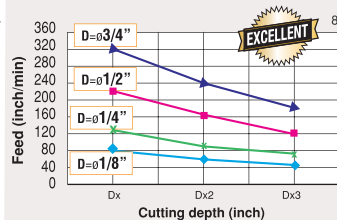
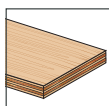


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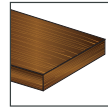
particle boards  
laminates / unlaminates



plywood laminates/  
unlaminates

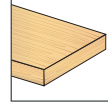


hardwood



Amana Tool® doesn't recommend using the Spiral Flute Plunge for Solid Wood router bit on Hardwood.

softwood



Amana Tool® doesn't recommend using the Spiral Flute Plunge for Solid Wood router bit on Softwood.