

# DADO SETS

## 658040 & 658040-1

*Instruction Manual*



**MADE IN**

**GERMANY**

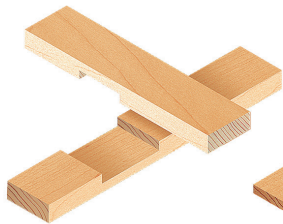


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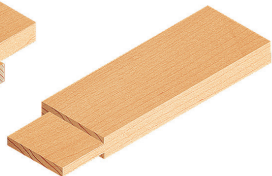


For up to date Safety Guidelines in English, French and Spanish visit [www.amanatool.com/safety](http://www.amanatool.com/safety)

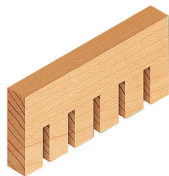
## Dado Set Joint Styles



Half Lap



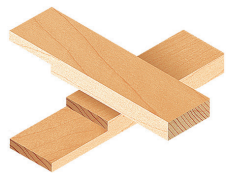
Tenons



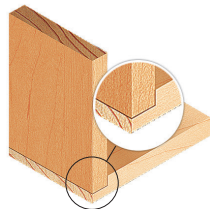
Dentil



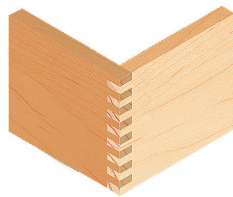
Groove & Rabbets



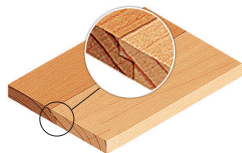
Corner Lap



End Lap



Box Joints



Ship Lap

## IMPORTANT SAFETY/USAGE INSTRUCTIONS PLEASE READ!

Thank you for purchasing this top-quality cutting tool from Amana Tool. For your safety and to achieve good results, please read and fully understand these instructions before using this product.

### Description

The Amana stacking dado set is a professional quality carbide tipped tool that will give years of trouble-free service provided that they are properly maintained, re-sharpened and used in accordance with this booklet and other appropriate reference materials.

### Machine Selection

Dado sets can be used on high quality table saws or radial arm saws with 1-1/2 or more horsepower. Do not use this product in any under-powered table saw or other type of equipment such as a miter saw, portable circular saw, compound miter saw, portable table saw, etc. It is very important that your machine is stable, free of vibration and has minimal arbor run-out tolerances (.003" maximum).



The run-out can easily be checked using a dial indicator and magnetic base.

The table insert (if using a table saw) must be of the appropriate type for dado sets, the arbor length must be adequately long, and the flanges/ hardware must be in good condition.

Consult your machine's owners' manual for further information.

### Machine Checklist ✓

- |  |                                       |
|--|---------------------------------------|
| <input type="checkbox"/> 1-1/2 HP Minimum      | <input type="checkbox"/> Hardware     |
| <input type="checkbox"/> Flanges               | <input type="checkbox"/> Table Insert |
| <input type="checkbox"/> .003" Run-out maximum | <input type="checkbox"/> Arbor Length |

### Dado Arbor Sizes

The following is a general guideline with regard to dado diameter versus the appropriate size machine and arbor size:

Dado Diameter	Machine Capacity	Arbor Diameter
6" through 8"	10" through 12"	5/8" through 1"
10"	12" through 14"	5/8" through 1"
12"	14" and up	1" and up

**Note:** Always use the smallest diameter dado set that will accomplish the task.

## Safety

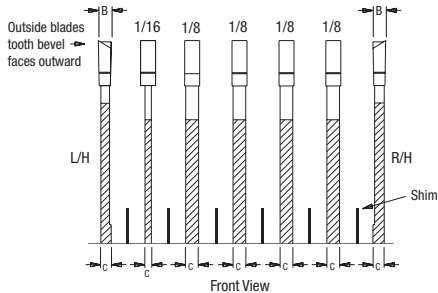
1. Disconnect the machine from the power source when making set-ups.
2. Always use a dado head table insert to provide support to the stock around the blade.
3. Always position the dado on the arbor with the teeth facing the front of the machine.
4. Always feed the workpiece against the rotation of the dado.
5. Make certain that all of the threads on the arbor nut are threaded on to the arbor. If the nut is only partially threaded, remove a chipper(s) to reduce the thickness of the dado.
6. Always use the outside blades. Never attempt to use the chippers without the outside blades.
7. Always use a guard.
8. Always use push sticks to distance your hands from the dado set.
9. Use featherboards to keep the stock positioned against the table and fence
10. Do not attempt to saw "freehand". The stock should be supported with the fence or the miter gauge.
11. Carefully clean and inspect arbor, threads, lock nut, flanges, dado components and all safety devices & guards.

## Machine Set-Up

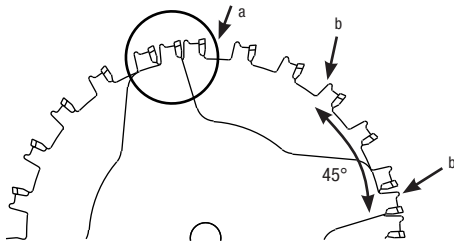
Using the tables elsewhere in this manual, determine the dado width (kerf) that you would like to cut and proceed with the following:

1. Unplug and lock out all power to the machine.
2. Remove table insert, if using a table saw.
3. Remove lock nut, collar(s), and blade from arbor.
4. Determine the proper rotation of the outside blades, the 'face' or flat-side of the teeth should be facing the front of the machine. (see illustration #1). Begin by placing the first collar on the arbor (if not already attached), then the first outside blade. Next, add the appropriate chipper(s) and shim(s) from the table. Distribute the shims, regardless of thickness, as evenly as possible between the chippers and outside plates (see illustration #1) rather than stacking them all together. This will avoid gaps between the chippers or outside plates and ensure a flat bottom dado. Be sure to stagger the chippers 45 degrees from each other. In addition, the teeth of the chipper(s) should be placed within the gullet area of the outside blades (see illustration #2). Finally, add the second outside blade then the collar from the machine and properly tighten the lock nut according to the machine manufacturers' specifications. Double check that all components are tight and that no carbide teeth are touching each other.

**Illustration 1**



**Illustration 2**



- a. Position the chipper teeth in the gullets of the outside blades.
- b. Stagger the chippers 45 degrees apart

## Machine Set-Up (cont.)

It is advisable to line up the ATB teeth on both outside blades in order to take an accurate measurement.

5. If using a table saw, replace the table insert with the proper type. Warning: Never attempt any cutting without the table insert in place. The work-piece must properly supported near the cutting area.
6. Check all guards and safety devices before restoring power.
7. Perform a test cut to check the set-up.
8. Warning: Both outside dado blades must be used. Never attempt to use the chippers without both outside blades in place.

**Note 1:** Distribute the shims, regardless of thickness, as evenly as possible between the chippers and outside plates (see illustration #1) rather than stacking them all together. This will avoid gaps between the chippers or outside plates and ensure a flat bottom dado.

**Note 2:** Shims may need to be added or removed to compensate for any machine arbor or saw blade runout. Additional shims may also be necessary after having the dado set resharpened. To ensure the desired fit, it is best to test the dado width on a scrap piece of the same material as your finished project.

## Dado Size Chart

Note: The information provided in the chart is intended as a guide only and does not account for any re-sharpening or normal manufacturing and run-out tolerances. As always, measure twice - cut once.

## Dado Set Components

Dado Width	Outside Blade	Outside Blade	Inside Chippers		Shims			
	R/H	L/H	1/16"	1/8"	.002"	.004"	.010"	.020"
1/4" (.254)	1	1	-	-	1	-	1	1
5/16" (.312)	1	1	1	-	2	1	-	1
11/32" (.343)	1	1	1	-	2	1	1	2
3/8" (.375)	1	1	-	1	2	1	-	1
7/16" (.437)	1	1	1	1	2	1	-	1
15/32" (.468)	1	1	1	1	2	1	1	2
12mm (.472)	1	1	1	1	2	2	1	2
1/2" (.500)	1	1	-	2	2	1	-	1
9/16" (.562)	1	1	1	2	2	1	-	1
19/32" (.593)	1	1	1	2	2	1	1	2
5/8" (.625)	1	1	-	3	2	1	-	1
16mm (.629)	1	1	-	3	2	2	-	1
11/16" (.687)	1	1	1	3	2	1	-	1
18mm (.708)	1	1	1	3	2	1	-	2
23/32" (.718)	1	1	1	3	2	1	1	2
3/4" (.750)	1	1	-	4	2	1	-	1
13/16" (.812)	1	1	1	4	2	1	-	1

## Dado Shim Sets

The perfect accessory for any dado set with 5/8" or 1" bore. Set includes 13 steel shims in various thicknesses for precise adjustment of your dado set. Especially useful for undersized plywood, etc. Order No. DSS-110 (5/8" bore) or DSS-111 (1" bore).

## Set includes the following shims:

Qty.	Inch	MM
5	.002	.05
4	.004	.10
2	.010	.25
2	.020	.50

## Dado Chippers 6" to 10" Flat Top (FT) Grind

Dia.	Bore	Order No. Chipper Thickness	
		1/16	1/8
6	5/8	651660	651860
8	5/8	651680	651880
8	1	651680-1	651880-1
10	5/8	651610	651810
10	1	651610-1	651810-1

### Safety Checklist ✓

- Unplug machine while changing or adjusting blades or other components.
- Machine safety guards are in place and functioning correctly.
- Wear proper eye, ear and face protection.
- Do not exceed maximum R.P.M. as listed (see table below).
- Use all necessary factory flanges, lock nut, etc.
- Use both outside dado blades.
- Wide or deep cuts should be performed in multiple passes.

### Dado Set Max. RPM Guidelines

Dado Set Diameter	Maximum RPM
6"	9,500
8"	7,000
10"	5,700
12"	4,800

### Maintenance

To maintain a safe and high-quality cut, regular re-sharpening is required. This should be performed by a qualified sharpening service only. Also, all of the components of the dado set should be re-ground at the same time to ensure that the outside diameter (O.D.) matches.

### Warning:

Carbide cutting tips may chip or fragment during use. Always use machine guards and wear proper eye protection while operating and power tools and machinery. Keep hands and loose clothing away from cutting area.

### Caution:

Grinding of this product will produce dust of potentially hazardous ingredients. Use adequate ventilation and read M.S.D.S. (Material Safety Data Sheets).

**Note:** This guide is intended for general information only and should not be considered a substitute for your power tools' owner's manual, nor a guide to safe woodworking practices. Please consult other appropriate reference materials.

**Technical Assistance:** For technical assistance, please contact the Amana Tool Technical Hot-Line at 1-800-445-0077 or visit our website [www.amanatool.com/contactus](http://www.amanatool.com/contactus).



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