



We are the **WoodRat®** specialists!

Dovetail

Choose any dovetail bit; the WoodRat is a versatile dovetailer.

Sliding Dovetail

Much stronger, but on the WoodRat it is no more difficult than a dado joint.

Half-Blind Dovetail

No blocky pins here, only the WoodRat rivals the elegant drawer fronts of a master craftsman.

Mortise & Tenon

WoodRat makes this common joint with ease.

Groove

Start or stop wherever you like, the WoodRat is a right way up router table.



chipsfly.com

1-866-966-3728

info@thecraftsmangallery.com

About The Craftsman Gallery



Lewis Stepp
Owner/President

The Craftsman Gallery is a family-owned business located in Cincinnati, Ohio. We are a USA dealer for WoodRat®, primarily marketing on the Internet and at woodworking shows. We develop and manufacture products that enhance and extend WoodRat capabilities and we offer other manufacturers' products that are useful in a WoodRat shop. Unlike large web retailers, we are happy to answer e-mail or phone queries and provide after-sales support. Our e-mail address is info@thecraftsmangallery.com.

Chipsfly.com

Our website, like the woodrat.com site, acts as a hub for WoodRat owners. You can buy your WoodRat and accessories, read about the latest developments, download manual updates and get advice from others. We are constantly improving and expanding the site.

Meet Us

We demonstrate at woodworking shows across the USA. Click the 'Show Dates' link on our website chipsfly.com for a current schedule.

How to Order

You can order from us in the following ways. We accept VISA and Master Card payment. Your satisfaction is guaranteed. If you have any problem with our products, we will make it right or offer you a full refund, including shipping.



chipsfly.com



Online

chipsfly.com

Phone

1-866-WOODRAT
(966-3728)

Fax

513-232-9021

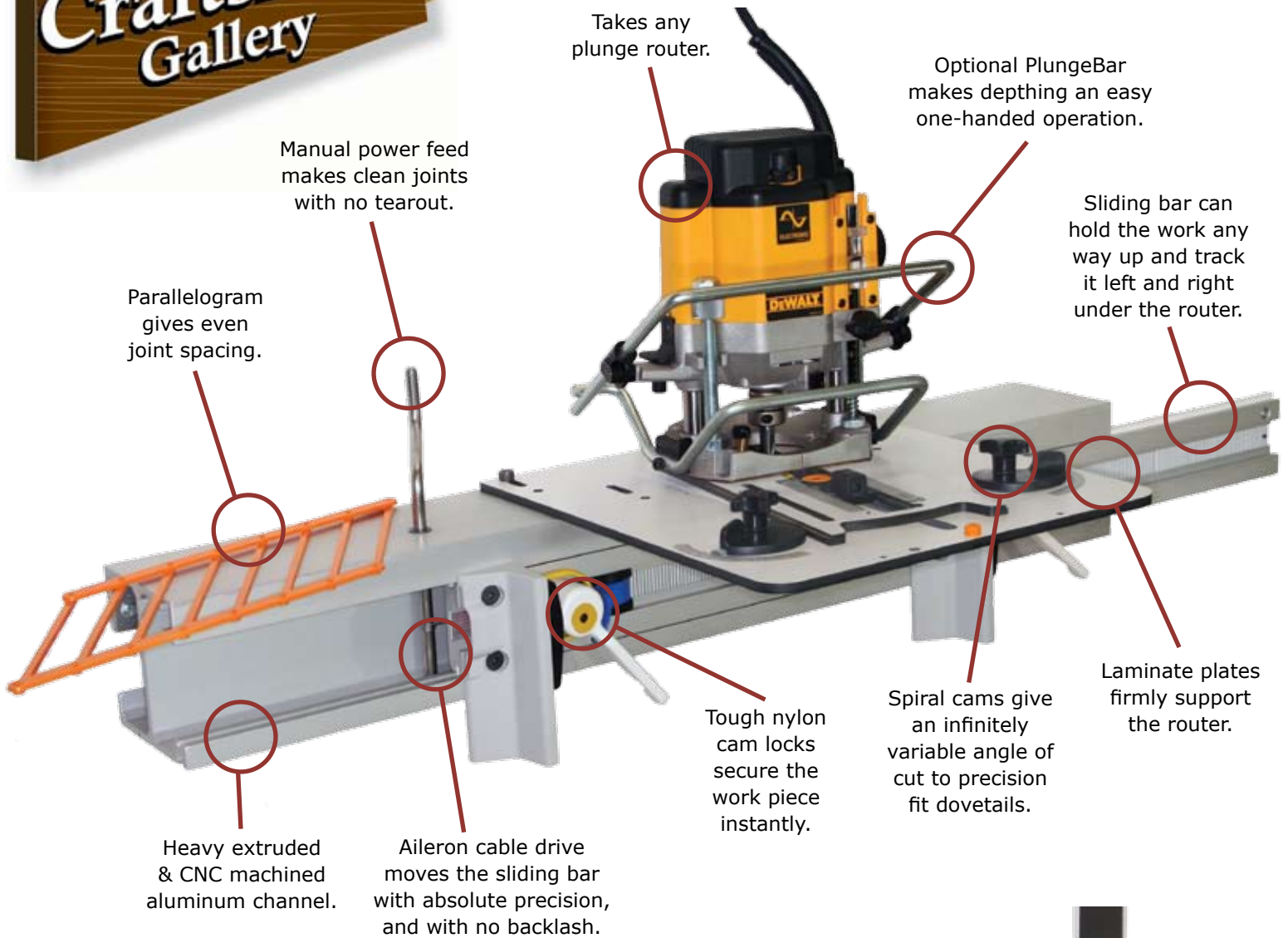
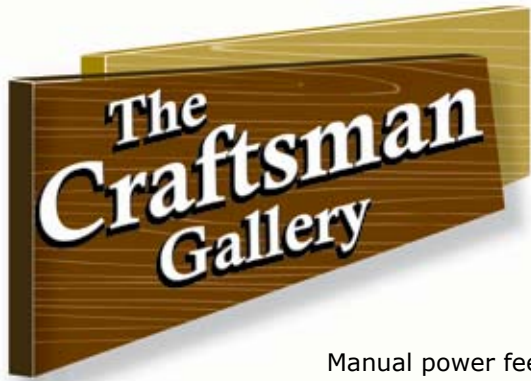
Mail

The Craftsman Gallery
PO Box 54518
Cincinnati, OH 45254

chipsfly.com

1-866-966-3728

info@thecraftsmangallery.com



New Digital Scale mounted on WoodRat

New in 2007

All 2007 WoodRat machines now have a revised channel with additional t-slots that are useful for mounting stops and jigs such as our new 8" and 10" electronic digital scales. The digital scales provide a very precise way to cut perfect fitting dovetails, box joints and sliding dovetails. With the digital scales, you can translate your cut pattern into digital readings then use those readings to cut both parts of a joint. Your cuts will be as accurate

and repeatable as with any template based jig, but without the limitations of the template.



"This gizmo is well-made, versatile, and reasonably easy to master..."
— *Woodworker's Journal*

Fine Furniture Demands Fine Joinery



If the goal is to create cabinetry to last only a few years, then simple joinery techniques like stapling or nailing are appropriate. If, on the other hand, the goal is to create fine furniture that will survive varieties of style and passage of time, then time-honored wood-to-wood joints that are strong, beautiful and long lasting should be the choice.

WoodRat—Designed For Joinery

In today's woodworking shops, the simple and adaptable router has become an indispensable power tool for the furniture maker. The router's versatility and speed in profiling and shaping wood are legendary and unmatched.

For joinery, being able to guide the router predictably and precisely is critical. The WoodRat securely supports both the router and the wood and allows you to accurately manage a cut along the edge, face or end of a piece and to



Dovetail



Mortise & Tenon



Sliding Dovetail



Box Joint

do it cleanly without any risk of the wood being snatched out of your hand.

The router can be fixed at any point up to 10" from machine face so that the wood, held by an adjustable cam clamp on a sliding bar nested in machine face, can be traversed either left or right through the cutter by means of a cranked handle and cable drive (a power feed). There is no backlash in the system; let go of the handle and the wood stays put. With guide rails in place, you can also pull/push the router and cutter across the wood, starting and stopping the cut at any point. Repeatable accuracy is assured by setting stops on the machine.

A Better Router Table

With the router upright and accessible you can easily set depth of cut using depth setting features of your plunge router. An available WoodRat PlungeBar makes plunging the bit a smooth one-handed operation, freeing your other hand to operate the power feed mechanism.

Mortising and tenoning operations that are difficult, at best, on a traditional router table

WoodRat Machine

Shown with our digital scales, precision stop and aluminum fence.



are simple and straightforward on the WoodRat. Unlike on a router table, the wood does not hide the bit. You look down through the router base and watch the cut as it goes.

A Machine You Control

The WoodRat can do mortises, tenons, grooves, dadoes, through and blind dovetails, box joints, raised panels, sliding dovetails and a whole lot more. The magic of a WoodRat is in the creative way that it lets you work. Rather than relying on fixed templates that are part of the tooling, the WoodRat cut is guided by following a layout that you create for each joint. You can cut to a scribed line on the wood or to a pattern drawn on the machine, or use a previously cut piece as the pattern. You can set stops or use our laser guide or digital scale for precise setups. This working method removes constraints from the tooling, allowing you to solve virtually any joint making problem.

Everything You Need

The WoodRat is a complete machine and does not require an array of special purpose accessories. You are not asked to pay more when you need a new or larger joint. We do sell accessories that

enhance and extend WoodRat capabilities, but you can get most joinery done with just the basic machine. For new buyers, we offer an attractively priced package deal that includes the machine and our most popular accessories.

Safety Features

Because, for most operations, the WoodRat holds the wood while you guide the cut, it is safer than a router table. Unlike on a router table, most cuts can be safely made in either direction, thus permitting climb-cuts that eliminate breakout.

Dust collection is right behind the bit. Chips may fly, but most of the dangerous fine particles can be extracted through the rear channel of the WoodRat.

More Information Available

To preview the WoodRat in action, order WoodRat's 50-minute demonstration video in either DVD or VHS format. The machine comes with a 112-page instructional manual that can be downloaded from our website chipsfly.com.

"I would unhesitatingly choose the WoodRat as it is the most versatile."

– American Router

Profiles & Grooves: The Router Table's Domain

Decorative moldings, spline joints, grooves, flutes, raised panels, laps, rabbets...the WoodRat can substitute for a router table!

A router table may already be an indispensable tool in your shop, especially for profiling the edge of a board. The WoodRat was designed for joinery, but it also performs many router table tasks.

The Brush

Clamped to the WoodRat sliding bar and placed beneath the router bit, this simple device acts as a feather board to keep a work piece up against WoodRat's base plate when cutting a profile or groove. The brush supports the work piece while flexing just enough to allow the work piece to be pushed through the bit. Importantly, it also prevents kickback and protects your hands from the bit.



Profiling



Grooving

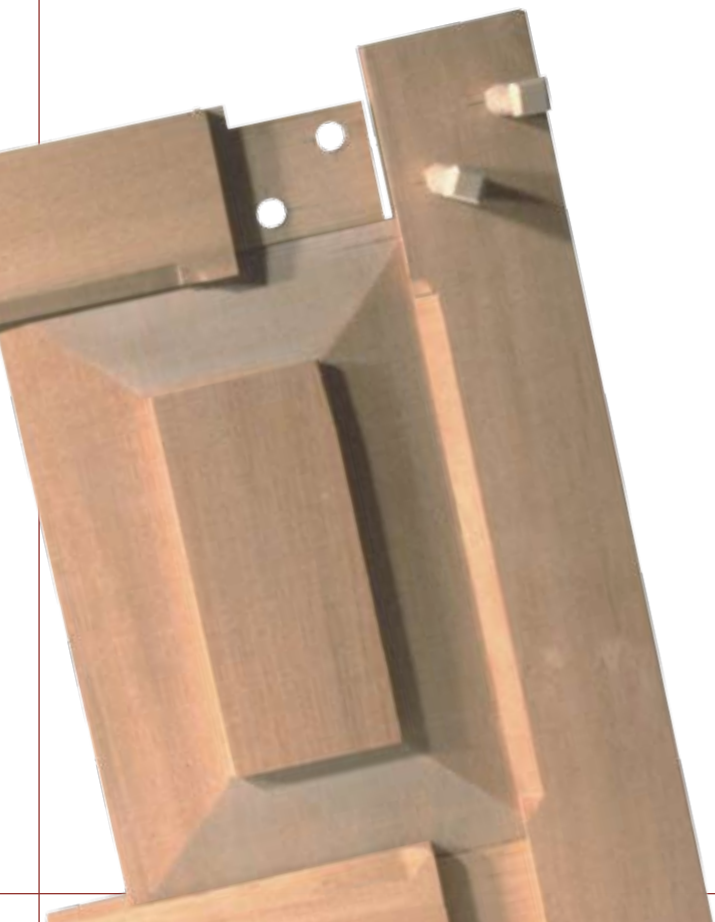


Panel Raising



After the brush is in place and the bit depthed, the work piece is hand-fed similar to the way work is passed across a router table. As with a router table, any length of board can be profiled or grooved.

WoodRat supplies a brush with the machine. The Craftsman Gallery adds a larger hog bristle brush with our WoodRat package deal.



Decorative Profiles

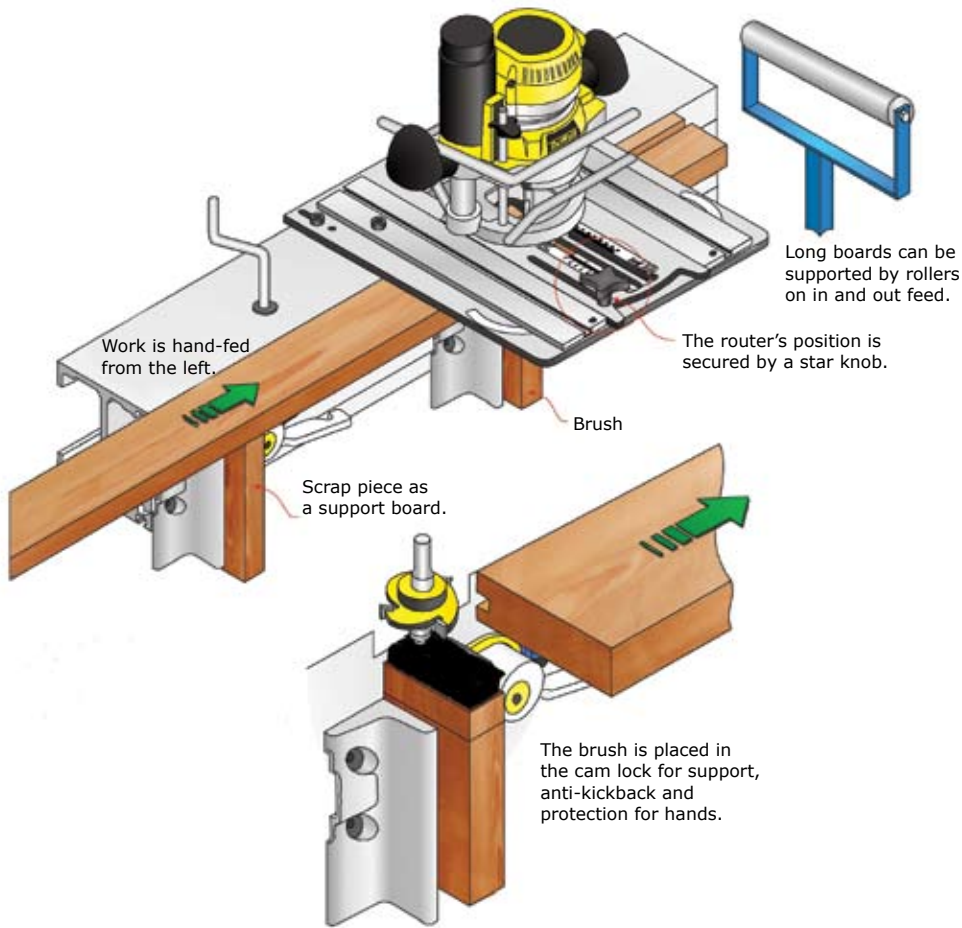
Almost any profile bit can be used to create decorative and functional profiles. Profiling on the WoodRat is similar to profiling on a router table or shaper. Generally, profiles are cut with the grain, and the work piece is hand-fed. One WoodRat advantage is that you can also clamp the work piece and use the power feed to do a climb-cut or to profile the end of the work piece. Use a vertical panel raising bit and climb-cut to raise panels with a smooth breakout free finish.



Decorative Profiling

Grooves

Cutting grooves or flutes on the WoodRat is quick and easy. Another WoodRat advantage is that a groove can be started or stopped anywhere along its travel. On a router table this might involve dropping the work piece on the spinning bit or lifting the work piece at completion of cut.



The WoodRat is also a router table, but with the router the right way up.

This means the router controls are readily available, plus you can see the bit as it cuts.



"Offers an endless array of wood-jointing capabilities"
– Patrick Spielman, *The New Router Handbook*

Sliding Dovetails: Replace Those Dado/Housing Joints

A sliding dovetail is the joint of choice for shelving, chest carcasses and table legs... difficult by hand or on a router table, but quickly and easily made on the WoodRat!

When made by hand, sliding dovetails are difficult and time consuming, so a dado or housing joint is often used as a quicker alternative. However, on the WoodRat a sliding dovetail is cut similar to and is no more difficult than the dado joint, but, because it cannot pull out of its socket, the sliding dovetail is much stronger. Both the socket and tenon cuts for a sliding dovetail are made with a dovetail bit.

Socket Cut

The socket cut is made by deeping the dovetail bit and, with guide rails in place, pulling the router and cutter across the work piece, often stopping the cut before exiting the other edge of the work piece. The cut can be aligned using either a center liner accessory furnished with the machine or our laser guide. During the cut, the work piece is supported by the brush and is also clamped to the WoodRat's base plate.

Tenon Cut

Tenon cuts are made on the end of the work piece in two passes. The first cut rebates the back edge, then the board is either flipped or the router moved forward to rebate the front edge. We prefer to flip the board, but either method can be used.



Socket Cut



Rear Tenon Cut



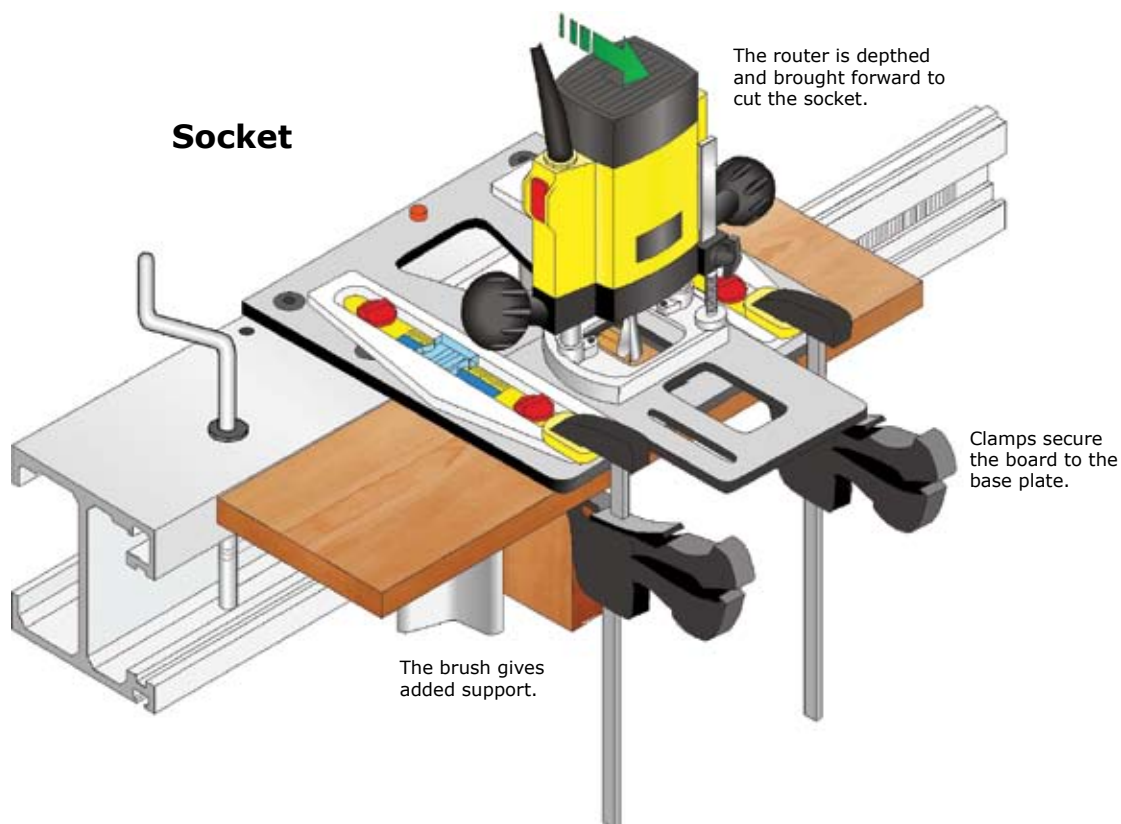
Front Tenon Cut



Assembly



Socket



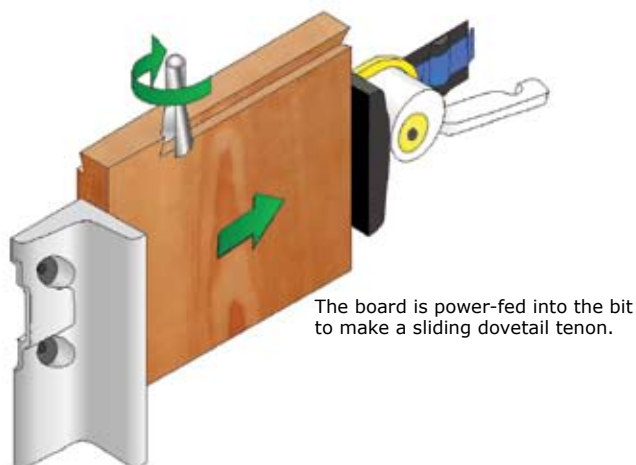
The router is depthed and brought forward to cut the socket.

Clamps secure the board to the base plate.

The brush gives added support.

LittleRat Machine

Tenon



The board is power-fed into the bit to make a sliding dovetail tenon.

The sliding dovetail is an excellent joint to use often—for example, in chest carcase construction the sliding dovetail holds a rail firmly across its width and prevents it from cupping and jamming the drawers.



Digital Scale

The WoodRat manual explains how to set up for sliding dovetails. Our WoodRat package deal includes a digital scale that provides an alternative method. With a caliper you measure both the tenon board and the socket cut, and then you subtract and divide by two to

calculate the tenon cut. Once you know how much to rebate from each side, the digital scale is used to accurately position the cuts. The digital scale also allows you to sneak up on the cuts and to know how much additional you are cutting in each pass.

Available exclusively through The Craftsman Gallery at chipsfly.com

"It is a little bit different—ok, a lot different—but viva la difference if it does such nice joinery."
— John Lucas, woodshopdemos.com

Mortises & Tenons: Most Widely Used Of All Joints

Simple, double, twin, double twin, angled, through, haunched and wedged...the WoodRat makes them all with ease!

The mortise and tenon, in its many variations, is the most common of all woodworking joints. It is found in the most delicate cabinet work and the heaviest timber-framed buildings. The fit of the parts seriously affects joint strength, so accuracy in cutting is most important. The WoodRat is a mortising and tenoning machine.

Mortising

Mortising is usually done with the work piece held horizontally. A simple carriage (we call it a 'mortise rail') clamped to the sliding bar holds the work piece under the WoodRat base plate. The mortise rail is transported left or right by the power feed mechanism. With the router the right way up and with a PlungeBar attached, it is quite simple to plunge the bit in incremental steps while you power feed left and right to remove waste, stopping when you reach depth stop on plunge router. You view the mortise as it is cut. The process is simple, fast and efficient.

The router bit produces a clean shouldered cut. The round corners left by the router bit are easily squared with a corner chisel.



Mortise Rail



Using PlungeBar



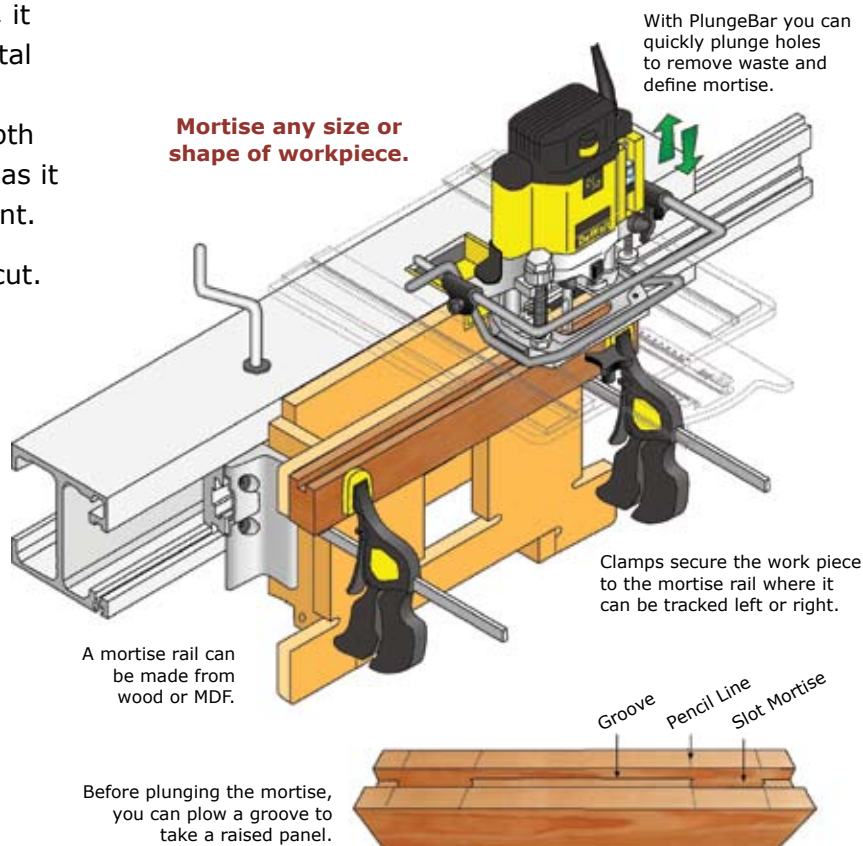
Haunched Tenon



Twin Tenon



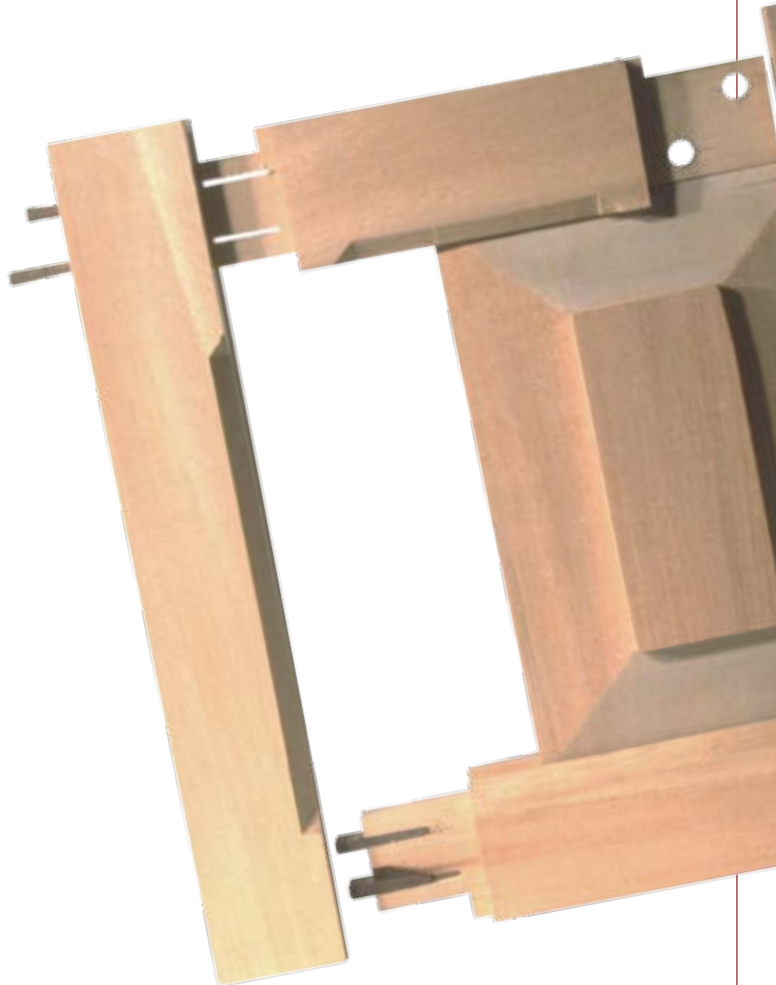
This specially designed mortise rail can be purchased from us. The 'indexing pin' shown on the underside of the trough, works with the stops to position and limit mortise cuts.



Tenoning

Simply described, the work piece is locked in the sliding bar cam lock, the bit depthed, and the tenon cut. Cut the back cheek first using a climb-cut to eliminate breakout, then reposition the router and cut the front cheek, also with a climb-cut. To haunch the tenon, reset the plunge depth with a gauge bar, then cut the side cheek.

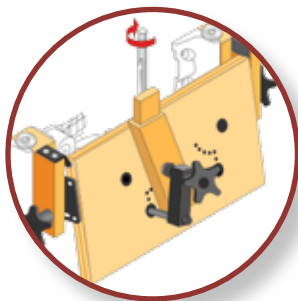
There is no machine designed for the small workshop that can compete with the WoodRat for simplicity, accuracy and speed in making mortise and tenon joints.



Gauge Bars

To cut a tenon to an exact width, our technique combines an adjustable stop with gauge bars. After cutting back cheek, we use the gauge bars to set a stop for the distance to move the router (sum of mortise and cutter

widths) and then we remove bars and move the router to the stop. It takes only seconds and is dead accurate. Our WoodRat package deal includes a micro-adjustable stop and a set of six gauge bars.



Multi-Angle Clamping Jig

Angled tenons require a wedge or jig to position the work piece at the desired angle. If you are building chairs or other furniture requiring angled tenons, consider our multi-

angle jig. It offers clamping at both single and compound angles and can also be used as a mortise rail. Rapid adjustment friction clamps securely hold the work piece.



Available exclusively through The Craftsman Gallery at chipsfly.com

"For me the WoodRat would pay for itself used solely for tenoning."
– The Router

Dovetails: The Finest Dovetails Of Any Machine

Any spacing, any dovetail bit, any stock from wafer-thin to 2" thick and 30" wide...the WoodRat is the most versatile dovetailer there is!

The through dovetail joint is the best choice for a strong cabinet joint. It appears difficult to make, but with the WoodRat it is relatively simple once you master the technique.

Most dovetail jigs do not cut a joint that is comparable to a hand-cut dovetail. The joint is weaker and less satisfactory in appearance. Machines that do emulate a hand-cut joint, such as WoodRat, cut tail pieces with a dovetail bit and pin pieces with a straight bit. All of the jigs, except WoodRat, work only with the manufacturer's specified bits. Only WoodRat gives you freedom of choice in bits and only WoodRat and The Craftsman Gallery manufacturers a full range of finely graded dovetail bits that match handmade work.

The Tails

Tail pieces are cut with a dovetail bit straight through the work piece. Spacing can be random, symmetrical or asymmetrical. The cuts are guided by following a layout that you create. For equal or symmetrical spacing, the layout can be created using a parallelogram furnished with the machine. Accuracy in spacing is not critical, because pin pieces will be cut to match the tails.

The dovetail bit is depthed to the thickness of the pin boards to which the tail pieces will be joined. All the tail pieces are cut before the pin pieces. As an option, the tail pieces can be clamped together and batch cut all at once using the power feed mechanism.



Layout



Tail Cut



Set Dovetail Angle



Pin Cut

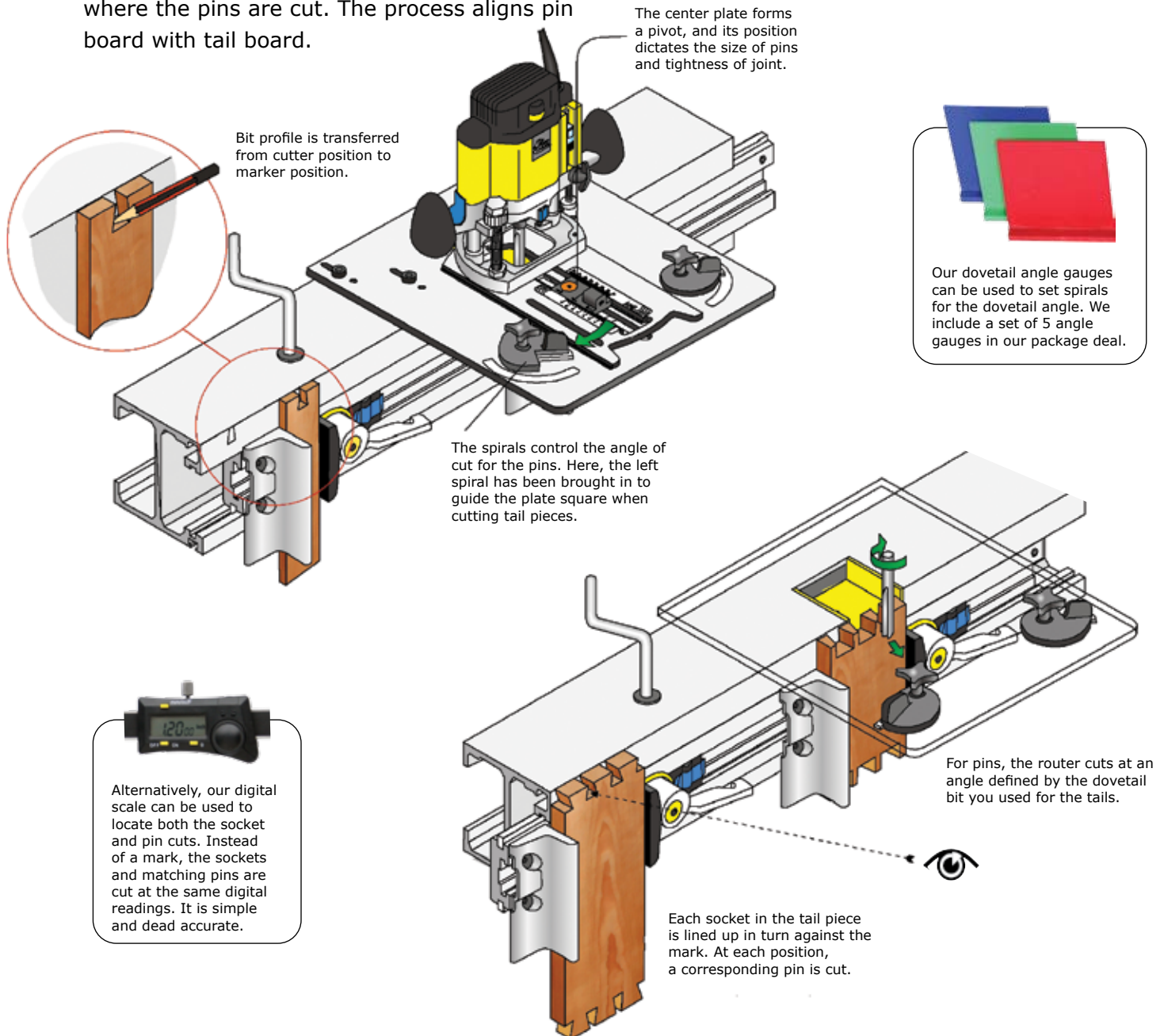


The Pins

Pin pieces are cut one-at-a-time with a straight bit to match a tail piece. Angle, width and depth of cut are machine settings. The angle and width settings are determined by the dovetail bit used to cut the tail piece. Depth of cut is set to the thickness of the tail piece board.

Both the tail piece and pin piece being cut to match are clamped to the sliding bar. The tail piece board serves as a template that guides where the pins are cut. The process aligns pin board with tail board.

The WoodRat offers the widest range of dovetail sizes available—from the smallest drawers and boxes to the largest chests and carcasses.



"An excellent dovetailer capable of producing the finest joints"
– The Woodworker

Half-Blind Dovetails: Drawers That Rival The Master Craftsman

There are many jigs on the market that produce half-blind dovetails for drawer fronts, some even with variable spacing. None, however, match the elegance of a hand-cut joint...that requires the surgical precision of the 'Rat and our finest high-speed steel bits!

The half-blind drawer-front dovetail is the defining joint of fine furniture. Open any drawer and you can tell instantly whether a chest has been hand made or mass produced. Less refined jigs make blocky pins and tails of equal size, and even the best jigs cannot rival the master craftsman. Only the WoodRat machine, using our ultra-fine 1-in-9 slope (6.5°) drawer-front bits, makes half-blind dovetails that closely resemble classic hand-cut needle-pins.

Two Techniques

Unlike a dovetail jig, the WoodRat makes drawer-front half-blind dovetails in one of two ways. The first, and traditional method, is with square shoulders as if cut by hand. This method is similar to the method for cutting through dovetails, except forward travel of the router bit is stopped when cutting the pin (drawer front) pieces. A skew chisel is used to square up rounded corners left by the stopped bit.

An alternative second method makes the joint with rounded shoulders (still with fine bits and variable spacing).



Tail Cut



Stopped Pin Cut

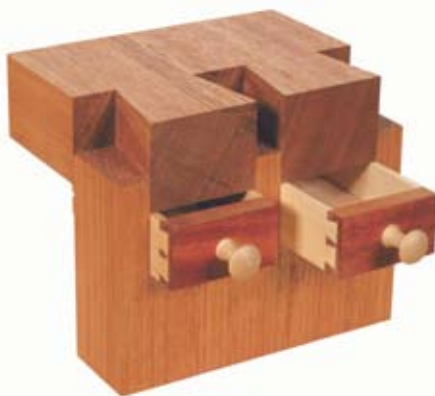


Pin Corners Squared



Assembly

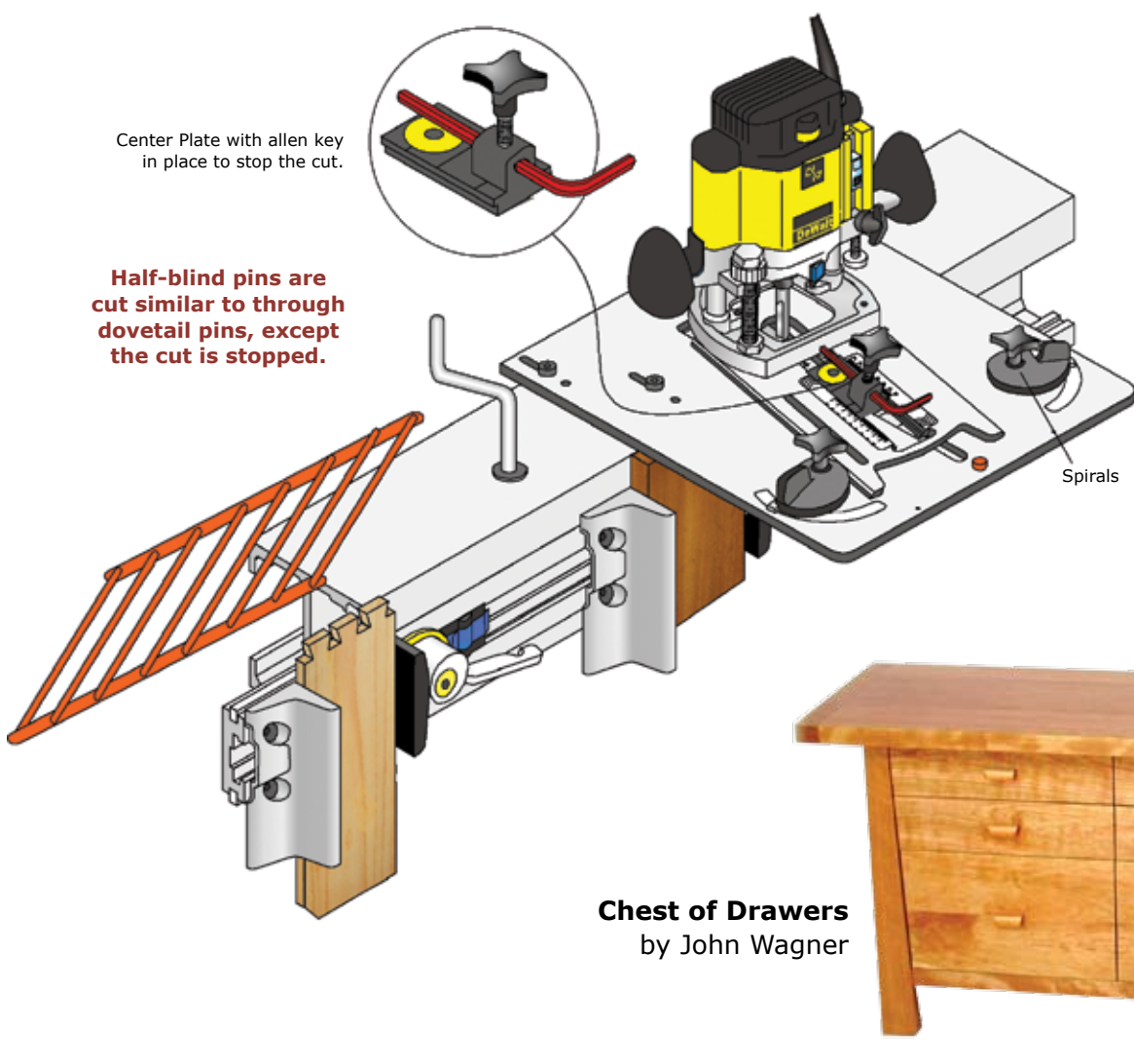
Our 1-in-9 slope bits match hand-cut needle-pins, but they must be used carefully to avoid breakage. As an alternative, our 1-in-7 (8°) bits are tougher, provide close to the same look and are our best sellers.





Center Plate with allen key
in place to stop the cut.

Half-blind pins are
cut similar to through
dovetail pins, except
the cut is stopped.

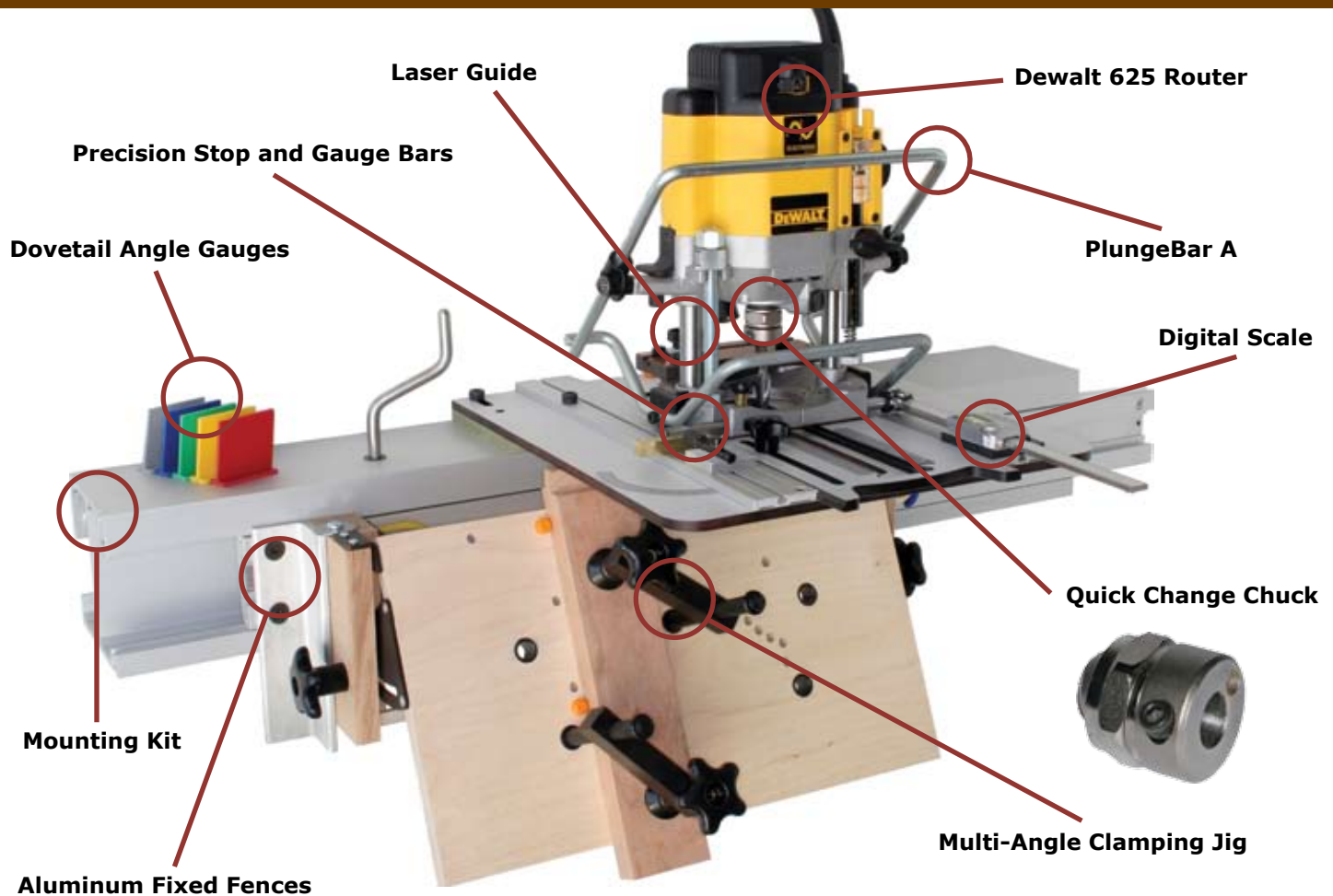


Spirals

Chest of Drawers
by John Wagner

"Using the WoodRat is like being at the helm of a ship,
steering a path towards new and exciting jointing."
– Jeremy Broun, *Woodworking magazine*

Outfit Your 'Rat: Enhance And Extend WoodRat Capabilities



To perform the joinery operations described in this brochure, you need a WoodRat, a plunge router and some bits. For new WoodRat owners we recommend starting with our WoodRat package deal, DeWalt router package, dovetail bit set and spiral bit set. If you already have a router and bits, you can use them. Please order using our product codes.

DeWalt Router Package \$285

If you are purchasing a new router, then consider the DeWalt 625 with PlungeBar A. This industry-standard router has been manufactured for 20 years, works perfectly with the WoodRat, and PlungeBar A was specifically designed for it.

13-630 DeWalt 625 with PlungeBar

WoodRat Package Deal \$729

Our mounting kit makes it easier to set up your machine, and our precision stop, brass gauge bars, digital scale, dovetail angle gauges, bristle brush and aluminum fences make it easier to set up precise cuts. When purchased with the machine, these accessories add only \$80 to the basic machine price of \$649.

11-105 Package Deal 10-105 Basic Machine

Quick Change Chucks \$52

Changing a router bit with the router upright and while holding a bit is a three-handed operation. Our quick change chucks make it a two-handed operation.

13-190 DeWalt 625 13-200 DeWalt 616/618, 621
13-210 Porter Cable 13-220 Bosch 1617, 1619

**Miter Box**

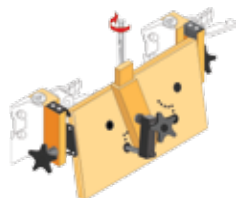
Holds wood at angle to cutter

30-100 \$32

**Mortise Rail Kit**

Use with quick clamps to hold wood horizontally for mortising, assembly required

30-115 \$60

**Multi-Angle Clamping Jig**

Holds wood at single or compound angles—easiest way to cut angled tenons

30-120 \$145

**3/8" Corner Chisel**

Squares mortise corners

36-115 \$35

**Dovetail Skew Chisel Set**

Squares half-blind dovetail pins

36-100 \$38

**10" Digital Scale**

Extended length offers greater capacity for dovetails and box joints

30-155 \$54

**Laser Guide**

Mounts on DeWalt 625 and projects a crosshair beam indicating where bit will cut

30-170 \$100

Package Deal

Select our package deal when you purchase your WoodRat machine and save over 40% on these accessories.

**Aluminum Fixed Fences (pair)**

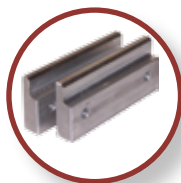
A longer stronger fence with an adjuster for removing any play in sliding bar

30-215 \$24

**Precision Stop**

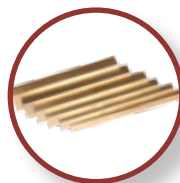
Use gauge bars to set stop then micro-adjust for a perfect fit

32-125 \$24

**Mounting Kit**

Includes aluminum cleats and screws for mounting machine and router

30-300 \$18

**Gauge Bar Set**

Eliminate measuring when setting stops

32-135 \$17

**8" Digital Scale**

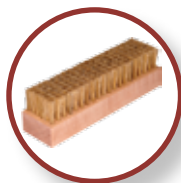
An alternative way to cut perfect fitting joints

30-150 \$48

**Dovetail Angle Gauges**

Provides 'built-in' angles for dovetail setup

30-140 \$6

**Bristle Brush**

Flat top brush exactly sized for fitting end of a 2-by-6 board

30-400 \$16

**WoodRat Demonstration DVD**

An excellent introduction to the WoodRat machine

32-930 \$5

"If you want to add a multi-function machine to your shop, the WoodRat is a great choice."

— American Woodworker

Router Bits: The Best Cutters

Finely graded dovetail bits made from the toughest high-speed steel plus solid carbide up-cut spiral bits for drilling, mortising and tenoning...these are the very best bits for your WoodRat machine!

For joinery operations you need straight and dovetail bits. Our bits have long shanks that are best with WoodRat. We offer our bits both individually and in sets with bit sets discounted 10% to 20% from the individual prices. In addition to bits shown, we carry most of the WoodRat line, TCT dovetail bits, vertical panel raiser and other bits. Available on our website chipsfly.com.

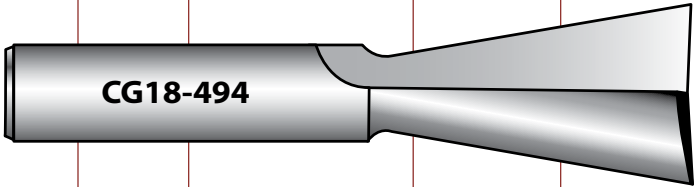
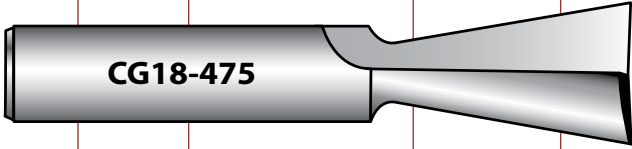
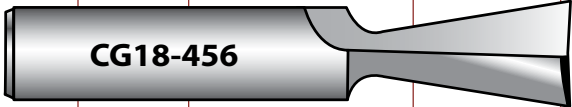
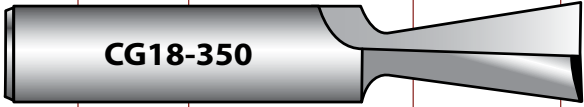
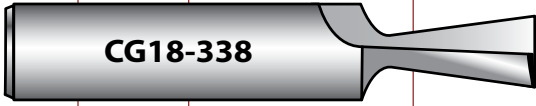
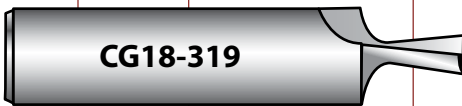
The Craftsman Gallery Dovetail Bits

For dovetail bits, we recommend high-speed steel (HSS) rather than tungsten carbide tipped (TCT) when cutting real wood. The higher rake and sharper edge achievable with HSS gives a better, cleaner cut. Although they won't stay sharp for as long as TCT bits, they're easy to sharpen using one of our DMT diamond hones.

HSS solves an inherent problem with TCT dovetail bits. The welded-on tip of TCT bits widens the dovetail neck and makes the cut stout looking. HSS bits are all structure, even the cutting edges, so we can make them with narrower necks. This gives the dovetail a more elegant appearance and a handmade look. For most craftsmen this repays the small amount of time taken honing the bits.

Our Craftsman Gallery line of Dovetail bits (shown at right) is custom made for us. While M2 steel is the industry standard for HSS bits, we use CPM M4 steel for exceptional toughness and wear resistance.

TCT should be used when cutting man-made material where HSS will dull quickly. Solid carbide is too brittle for dovetail bits and none are manufactured.

Angle	Width	Cutting Length	Shank	
				
10°	15/16	1 9/16	1/2	\$58
				
10°	3/4	1 1/4	1/2	\$48
				
10°	9/16	15/16	1/2	\$30
				
8°	1/2	1	1/2	\$27
				
8°	7/16	7/8	1/2	\$25
				
8°	3/8	3/4	1/2	\$24
				
8°	5/16	5/8	1/2	\$23
				
8°	1/4	1/2	1/2	\$22
				
8°	3/16	3/8	1/2	\$21

Actual size depicted



**5 Pc HSS
Dovetail Bit Set**
17-145 \$110



**4 Pc HSS Dovetail
Bit Set (Metric)**
17-150 \$95



**3 Pc Carbide
Spiral Bit Set**
17-130 \$98



**3 Pc HSS Straight
Bit Set (Metric)**
17-120 \$95



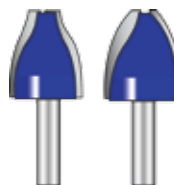
**4 Pc HSS Drawer
Dovetail Bit Set**
17-160 \$85



**7 Pc TCT Dovetail
Bit Set**
17-175 \$75



**Fine Credit Card
Diamond Hone**
32-100 \$10



**2 Pc Vertical Panel
Raiser Bit Set**
17-200 \$90

PlungeBar

Highly recommended, the WoodRat PlungeBar is a unique innovation that dramatically improves the ease with which you can control and depth your router. Depending upon your router, it consists of two or three bars that are attached to your router and that work together to provide a smooth one-handed control.

The bars provide improved leverage that works against the springs in your plunge router to provide a precise and subtle level of plunge control. You can quickly depth the router bit to exactly where you want it.

The bars also provide a convenient handle for guiding and positioning the router. Keeping your hand on the bar improves safety.



Select a PlungeBar to fit your router \$35

A 14-110 DeWalt 625, Elu 177

B 14-120 Ryobi RE180, small routers

C 14-130 Hitachi M12V, Bosch 1619, large routers

D 14-140 DeWalt 621, Elu 97

E 14-150 Porter Cable 7529, 8529

F 14-160 Bosch 1617, DeWalt 616/618

Visit chipsfly.com for a complete listing.

"It'll be your best friend and the money spent will be returned in spades."
— Popular Woodworking



PO Box 54518
Cincinnati, Ohio 45254 USA

PRSR STD
U.S. POSTAGE
PAID
CINCINNATI, OH
PERMIT# 5111

chipsfly.com

1-866-WOODRAT

VISA (966-3728)



Other Products

On **chipsfly.com** you will also find measuring/layout tools, hand tools, sharpening tools, safety equipment and other useful products for your shop.



Electronic Caliper with Fractional Display

Reads 3 ways: .01mm, .0005in and 1/64in

4"	30-144	\$30
6"	30-145	\$32
12"	30-147	\$59



Radius Plane

Easiest way to quickly round over or radius an edge

36-500 \$16



Combination Square with Center Head

Precision made with satin chrome 12" ruler, converts to center finder

34-235 \$38



Norton Waterstone Starter Kit

Everything you need to sharpen, includes all Norton grits plus flattening stone and video

38-460 \$119



Sliding Bevel

Universal bevel for all your angle settings, straight and offset slots, flat on back side

34-370 \$6



DIY Magic Saw

A coping saw, hack saw and glass cutter, it cuts wood, metal, plastic, tile and glass

37-100 \$20



Deluxe Hearing Protector

Foam filled ear muffs, padded headband, 26 decibel noise reduction

39-275 \$10



DIY Diamond Sharpener

Sharpen knives, blades, yard tools with course and fine grits on a convenient paddle

37-200 \$24



Our business is the customers we serve. We take pride in our customer service. Please let us know how we can serve you best.