MICROJIG



MATCHFIT™ Model: DVC-1177K2

Dovetail Clamp Pro

Instruction Manual

vU10.1

Get started creating your own track system.

Watch the instructional video:

MICROJIG.com/videos/matchfit



Your MATCHFIT Dovetail Clamp Pro includes the following items:

- 2x **DVC-538** Dovetail Clamps (2 Single)
- 1x **SG-133** - Setup Gauge
- 1x **MB-050-0514** Dovetail Bit 1/2" Shank **-or-**
- 1x **MB-025-0514** Dovetail Bit 1/4" Shank **-or-**
- 1x **MB-8mm-0514** Dovetail Bit 8mm Shank **-or-**
- 1x **MB-12mm-0514** Dovetail Bit 12mm Shank
- 1x **DVC-PRO-MA** Dovetail Clamp Pro Manual
- 2x **DV-HL2.0-EH** Track Screw 10-32 x 2.0"
- 2x **DV-HL1.5-EH** Track Screw 10-32 x 1.5"
- 2x **DV-HL1.0-EH** Track Screw 10-32 x 1.0"
- 2x **DV-HL0.0-EH** Track Nut 10-32 x 0.0"
- 2x **GR-52-EH** Wing Knob 10-32
- 2x **GR-50-EH** Round Knob 10-32
- 2x **GR-H14-EH** Shoulder Washer
- 2x **GR-H29-EH** PH Screw 10-32
- 2x **GR-H1-EH** Flat Washer #10

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Our 3-Year Warranty protects you against any manufacturer defects.

Please mail the provided registration card or complete the registration online at:
MICROJIG.com/support/warranty-registration

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Stay up to date with woodworking tips, tricks and new products when you become an MJ Insider. Go to
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Woodworking is an inherently dangerous activity. Be sure to know and follow all safety guidelines that come with your power tools.

Work Safer. Work Smarter®

Congratulations on your purchase of the MATCHFIT Dovetail Clamp Pro.

We know your projects are a labor of love just like our products are to us. That's why we put ourselves in your workshop, imagining every way you'll use and experience our family of products. Throughout your projects, you'll feel the difference our intelligent engineering and carefully selected materials make. We make the complex world of woodworking simpler, so you can work safer. We're always moving forward so you always work smarter.

Operation Precautions & Safety

SAFETY WARNING! MATCHFIT Dovetail Clamp Pro is designed to be used in conjunction with power tools. Make sure you are familiar with the operation of your tools before attempting any of the techniques presented within this manual. MICROJIG Inc. assumes no liability for any product not manufactured by it. The user must take all necessary precautions when operating power tools as recommended by their manufacturers and as required by any prudent tool user.

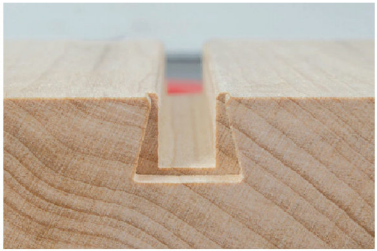
Proper use

- All components must be inspected for damage and securely fastened before every use. Stop using the tool if any damage occurs.
- In table saw operations, the rip fence must be securely locked parallel to the saw blade.
- When using the Dovetail Clamp Pro and its contents in conjunction with any other tool, refer to that owner's manual first. Read and follow all instructions and safety information.
- Always wear safety glasses and hearing protection. Follow all shop safety practices.
- It is the sole responsibility of the purchaser of this product to ensure that any third party reads and agrees to all safety precautions prior to use of this tool.
- Use saw blades that are designed for the intended cutting operation.
- Do not use this product while under the influence of drugs, alcohol or any medication.

Using The Matchfit Set Up Gauge

A. ¼" Relief Groove Depth Gauge





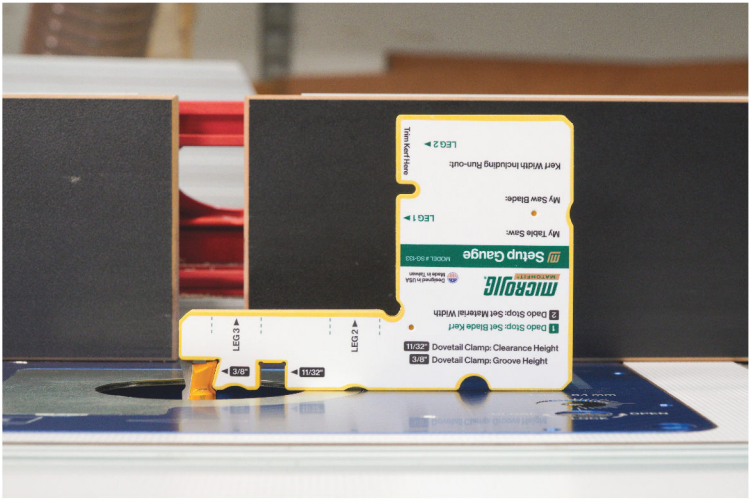
1. Prior to cutting dovetail tracks with the included MATCHFIT Dovetail Router Bit a relief groove must be cut to remove most of the waste material. A relief groove will provide a cleaner Dovetail cut and greatly extend the life of your Dovetail Bit.

2. Relief grooves should be 1/4" (6mm) wide and 11/32" (8mm) deep. They can either be cut on a table saw or with a router.

3. Set the depth of your router bit or saw blade using the square Relief Groove notch in the Setup Gauge as shown.



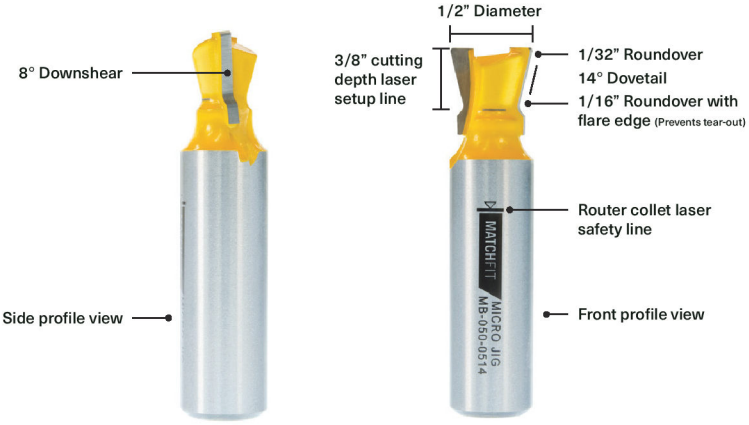
B. 3/8" Dovetail Bit Depth Gauge



1. The MATCHFIT Setup Gauge features a 3/8" (9.5mm) depth gauge to quickly and easily set the MATCHFIT Dovetail Router Bit's cutting depth. However, the bit's built-in roundover cuts the right Dovetail with depths from 0.365" (9.2mm) to 0.395" (10mm) to ensure a great result.
2. With the long side of the Setup Gauge flat on the router table top or router base, raise the bit until it touches the top of the outermost notch.

MatchFit Dovetail Router Bit

The MATCHFIT System was designed around a standard 1/2" 14-degree dovetail profile because it is one of the most common, accessible dovetail router bits on the market. The MATCHFIT Dovetail Router Bit improves on this design, and is optimized for routing MATCHFIT dovetail tracks for jigs and fixtures.



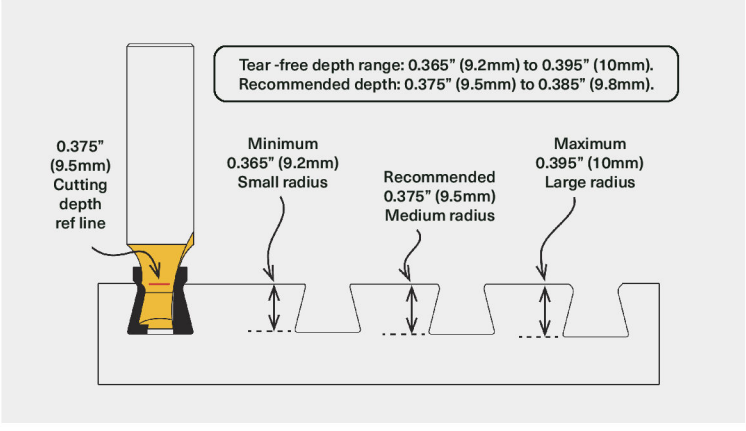
Features

- The 8 degree downshear carbide works similarly to a helical cutterhead on a jointer or planer. Approaching the material at an angle puts less stress on the carbide, and results in clean, virtually tearout free cuts.
- The 3/8" laser-etched cutting depth line allows you to quickly dial in a perfect cutting depth, with or without the Setup Gauge.
- The laser-etched router collet safety line shows the safest depth within the collet to secure the router bit. This prevents it from bottoming out or vibrating and ejecting from the router.
- The 1/16" roundover with flare edge automatically rounds over

Features (Continued)

the top edge of the dovetail track in one pass. This virtually eliminates the need to sand, and prevents material from binding in the tracks. The flare edge creates a depth tolerance range. The narrowest point of the dovetail track remains constant, within 0.365" (9.2mm) to 0.395" (10mm) depth.

- A deeper cut will produce a more pronounced roundover. Refer to the diagram below.

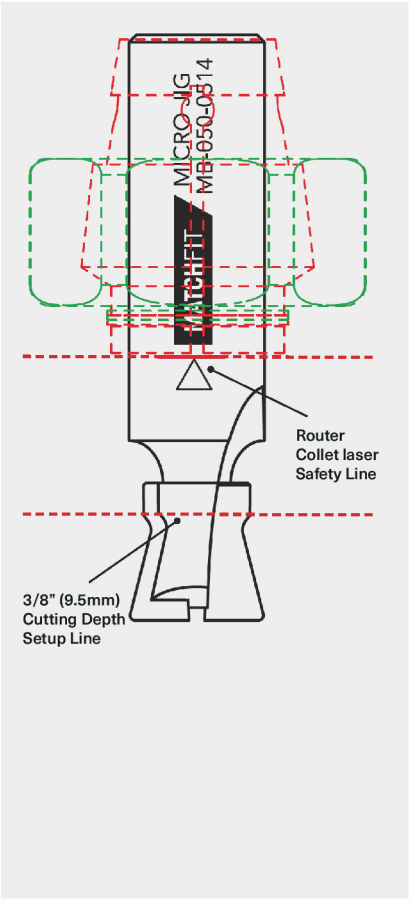


Operation

- Insert the MATCHFIT Dovetail Router Bit into the router's collet, aligning the router collet safety line with the top of the collet jaws, and tighten collet.
- Set cutting depth to 3/8" (9.5mm) with the included Setup Gauge.
- Router speed should not exceed 24,000 RPM. We recommend 18,000 RPM.

Operation (Continued)

- When routing dovetail tracks in an intersecting grid formation, route across the grain before routing along the grain to reduce tear-out at the intersections.
- To maintain flatness and structural integrity, a minimum material thickness of 3/4" is required.
- The included MATCHFit Dovetail Bit is NOT a plunge cutting bit. All Dovetail cuts must start off the material or in a pre-drilled opening.
- Always use a straight edge, fence or any additional accessories needed
- Refer to the router manufacturer's user manual for maintenance and safety information.



MatchFit Dovetail Clamps

MATCHFIT Dovetail Clamps offer the functionality of traditional track clamps without the expensive T-track. Its head is forged into a standard dovetail profile, allowing you to put a track anywhere you need one and secure material anywhere along the track, with just a router bit.

Features

- 2-3/8" (60mm) throat depth
- 5-3/8" (136mm) clamping capacity
- 595 pound clamping pressure





Compatible with any standard 1/2" 14-Degree dovetail router bit

A

Standard ½" 14-degree dovetail profile forged steel jaw

B

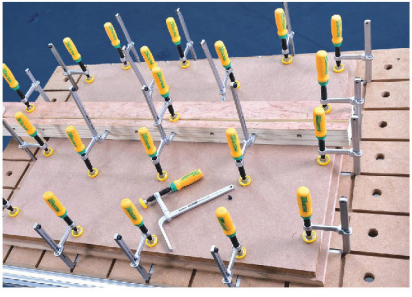
Ergonomic rubberized soft grip handle

C

Reversible arm feature unique to MATCHFIT Dovetail Clamps

Operation

- Insert the MATCHFIT Dovetail Clamps into 1/2" 14-degree, 3/8" (9.5mm) deep dovetail track, and turn handle clockwise to tighten the clamp.
- To reverse the clamp arm, loosen the screw with a 4mm or 5/32" allen key.



MatchFit Dovetail Hardware

MATCHFIT Dovetail Hardware uses the same standard 1/2" 14-degree dovetail profile as the Dovetail Clamps and Router Bit. Its low-profile design makes Dovetail Hardware ideal for fences, stops and hold-downs when strong clamping pressure is not needed. When used in dovetail tracks cut in a grid formation, jigs can be set to any angle and locked in place, fast.



A
(2) Dovetail Track Nuts with 10-32 threaded brass inserts

B
(2) 1" (25.4mm) long 10-32 Dovetail Track Screws with round knobs and nylon shoulder washers

C
(2) 1-1/2" (38.1mm) long 10-32 Dovetail Track Screws with wing knobs

D
(2) 2" (50.8mm) long 10-32 Dovetail Track Screws with wing knobs

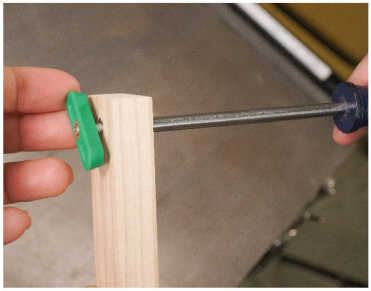
Features

- Compatible with 1/2" 14-degree dovetail profile
- Green dovetail anchor is 1-1/2" long to avoid binding in track intersections

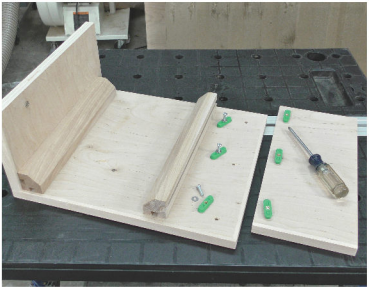
Operation



Jigs require 3/16" or 1/4" diameter holes or slots to accommodate the Dovetail Hardware's 10-32 screws.



For Dovetail Track Nuts, insert 10-32 screw into a counterbored hole from the top of the material. Thread into the track nut before inserting the Dovetail Track Nut into a dovetail track.



Once in position, tighten the screws to lock the track nuts in place.



The Nylon Shoulder Washers included are compatible with the accessory notches found throughout the GRR-RIPPER line of products. Simply add shoulder washers to the Dovetail Track Screws before the knobs, attach to the GRR-RIPPER, and tighten.

Combo Tall Fence / Jointing Sled Plans

Free Plans

Start using your Dovetail Clamp Pro kit today with this simple plan that will show you how to build a Combo Tall Fence / Jointing Sled. This jig makes it easy to add height to your table saw, band saw, and router table fence, or usa as a jointing sled to cut a straight edge on rough or live edge stock.

STEP 1

Cut Stock To Size

Cut a piece of good quality plywood (void-free birch is best) to 10" (250mm) wide. Then, crosscut the piece to the length of your rip fence.

STEP 2

2A - Cut Relief Grooves

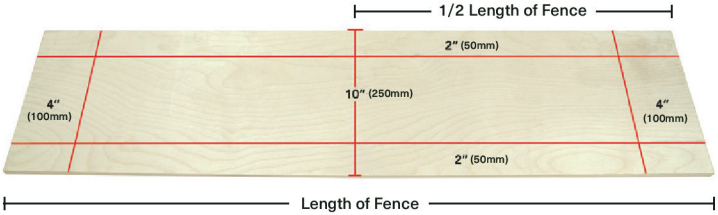
Use a 1/4" (6mm) straight router bit or the MATCHFit Relief Bit and set the cutting depth to 11/32" (8.5mm). Route grooves 2" (50mm) in from each side longways, and 4" (100mm) in from each end.



Free Plan (Continued)

2B - Cut Relief Grooves - Continued

Then, route a relief groove in the center. Location will depend on the length of your fence. For example, if your fence measures 40" (1000mm) in length, route a relief groove at 20" (500mm).



STEP 3

Route Dovetail Tracks

Using the MATCHFIT Dovetail Router Bit provided, set the cutting depth to 3/8" (9.5mm). Refer to the cutting depth guide on page 10 of this manual.



Route dovetail tracks in the same locations as the relief grooves.

Using as a Tall Fence



Set the tall fence on the blade side of your fence with the bottom edge flat on the table top. Insert the MATCHFIT Dovetail Clamps into the vertical tracks and tighten them to the back of the fence. The clamp heads are inside the tall fence and never in your way.

Using as a Joint Sled



- Lay the sled flat on the table surface and set your rip fence to 10-1/8" (253mm), leaving a small gap between the sled and the blade.
- Clamp your workpiece to the sled. Make sure that your clamps are spread out in the tracks available in order to secure the entire workpiece.
- Once the Dovetail Clamps are tightened, the bars can be used as handles to advance the sled and workpiece through the cut.

There's no limit to what you can build with the MATCHFIT System.

The only question is, "Where to start?" Visit **microjig.com/projects** to access our library of free jig plans and tutorial videos.

Free Downloadable Jig Plans

Scan this QR code for access to our library of free jig plans and for more information about the MATCHFIT 360 System.

Work Safer. Work Smarter®

We hope that you enjoy these project plans and learn a few new tricks to use in your shop. Share photos of your completed project with us on Facebook, Twitter and Instagram with hashtag #worksmarter

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