

CMT 690.019

CMT 690.019 Profiled Knives for Shaper Cutters

Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective use of your CMT 690.019 Profiled Knives. These knives are designed for insertion into compatible shaper cutters to create specific wood profiles. Please read this manual thoroughly before installation and operation to ensure proper usage and to maximize the lifespan of your tools.

2. SAFETY INFORMATION

WARNING: Always follow general woodworking safety practices and the specific safety guidelines provided with your shaper cutter. Failure to do so can result in serious injury.

- Always wear appropriate personal protective equipment (PPE), including safety glasses, hearing protection, and dust mask.
- Ensure the shaper cutter is disconnected from power before installing or changing knives.
- Handle knives with extreme care; they are very sharp.
- Ensure knives are correctly seated and securely fastened in the shaper cutter head according to the shaper cutter's instructions.
- Never operate a shaper cutter with dull, damaged, or improperly installed knives.
- Keep hands and fingers clear of the cutting area during operation.
- Maintain a clean and well-lit work area.

3. PRODUCT OVERVIEW AND FEATURES

The CMT 690.019 Profiled Knives are precision-engineered cutting tools designed for use with compatible shaper cutter systems. They are sold as a pair to ensure balanced cutting.

Key Features:

- Made of alloyed steel for durability and strength.
- Designed for long-lasting performance in demanding woodworking applications.
- Specifically engineered to cut wood and wood products, creating a precise profile.

- Part of a comprehensive system of interchangeable profiled knives.

Profiles 00-14

Profile Knives for the Insert Shaper System

Cutting length=1-37/64" (40mm) - Thickness=5/32" (4mm)

Pack Qty. 10

SP

<p>Pair of knives 690.000</p>	<p>Pair of knives 690.001</p>	<p>Pair of knives 690.002</p>
<p>Pair of knives 690.003</p>	<p>Pair of knives 690.004</p>	<p>Pair of knives 690.005</p>
<p>Pair of knives 690.006</p>	<p>Pair of knives 690.007</p>	<p>Pair of knives 690.008</p>
<p>Pair of knives 690.009</p>	<p>Pair of knives 690.010</p>	<p>Pair of knives 690.011</p>
<p>Pair of knives 690.012</p>	<p>Pair of knives 690.013</p>	<p>Pair of knives 690.014</p>

Note: all knives available only in pairs

Drawings are 1:2 scale

Dimension in mm.

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Figure 1: The CMT 690.019 profiled knife (shown as 690.019 in the diagram) is part of a series of knives designed for the insert shaper system. This specific knife creates a rounded profile with a small flat edge, suitable for decorative or functional woodworking applications.

4. SETUP AND INSTALLATION

Proper installation of the CMT 690.019 knives is critical for safe operation and optimal cutting performance. Always refer to your specific shaper cutter's instruction manual for detailed installation procedures.

1. **Power Disconnection:** Ensure the shaper cutter is completely disconnected from its power source before beginning any installation or adjustment.
2. **Cleanliness:** Thoroughly clean the shaper cutter head and the knife slots to remove any sawdust, resin, or debris. A clean surface ensures proper seating of the knives.
3. **Knife Insertion:** Carefully insert the CMT 690.019 profiled knives into the designated slots in the shaper cutter head. Ensure both knives are inserted correctly and match the profile.
4. **Secure Fastening:** Tighten the knife retaining screws or clamps according to your shaper cutter's specifications. Ensure they are tightened evenly and securely to prevent knife movement during operation. Do not overtighten.
5. **Balance Check:** Verify that both knives are installed symmetrically and are balanced. Unbalanced knives can cause vibration, poor cut quality, and dangerous conditions.
6. **Test Run (Manual):** Before powering on, manually rotate the shaper cutter head to ensure there is no interference with any part of the machine or workpiece.

5. OPERATING INSTRUCTIONS

Once the knives are securely installed, follow your shaper cutter's operating procedures. The CMT 690.019 knives are designed for profiling wood and wood products.

- **Material Compatibility:** These knives are designed for wood and wood products. Do not attempt to cut metal, plastic, or other materials unless explicitly stated by CMT or your shaper cutter manufacturer.
- **Feed Rate:** Adjust the feed rate of your workpiece to allow the knives to cut cleanly without burning or tearing the wood. A slower feed rate is generally better for harder woods or deeper cuts.
- **Depth of Cut:** Make multiple shallow passes rather than one deep pass, especially when working with large profiles or hard materials. This reduces strain on the knives and the shaper, and improves cut quality.
- **Workpiece Support:** Always use appropriate fences, featherboards, and push sticks/blocks to safely guide and support the workpiece through the shaper.
- **Dust Collection:** Utilize an effective dust collection system to maintain a clear view of the cutting area and to reduce airborne dust.

6. MAINTENANCE

Proper maintenance extends the life and performance of your CMT profiled knives.

- **Cleaning:** After each use, remove the knives (following safety precautions) and clean them thoroughly to remove resin and wood residue. Use a specialized blade cleaner or mineral spirits. Avoid abrasive cleaners.
- **Sharpening:** These knives are designed for professional sharpening. Do not attempt to sharpen them yourself unless you have the proper equipment and expertise. Dull knives can cause burning, tear-out, and excessive strain on your shaper.
- **Inspection:** Regularly inspect the knives for signs of wear, chips, cracks, or damage. Replace damaged knives immediately. Never use a damaged knife.
- **Storage:** Store knives in a dry, protected environment to prevent rust and damage. Keep them in their original packaging or a dedicated knife storage case.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with your CMT profiled knives.

Problem	Possible Cause	Solution
Poor cut quality (tear-out, burning)	Dull knives, incorrect feed rate, improper depth of cut, incorrect knife installation.	Sharpen or replace knives. Adjust feed rate (slower). Reduce depth of cut (multiple passes). Re-install knives correctly and securely.
Excessive vibration	Unbalanced knives, loose knives, damaged shaper cutter head, worn shaper bearings.	Ensure knives are balanced and securely fastened. Inspect shaper cutter head and bearings; consult shaper manual or professional if necessary.
Knives slipping or moving	Improperly tightened screws, dirty knife slots, damaged knife or shaper head.	Ensure screws are tightened to specification. Clean knife slots thoroughly. Inspect knives and shaper head for damage; replace if necessary.

8. SPECIFICATIONS

The following specifications apply to the CMT 690.019 Profiled Knives:

- **Model Number:** 690.019
- **Material:** Alloyed Steel
- **Cutting Length:** 1-37/64 inches (40mm) - *Note: This is a general specification for the insert shaper system knives, not specific to the 690.019 profile's cutting edge length.*
- **Thickness:** 5/32 inches (4mm)
- **Item Weight:** Approximately 0.353 ounces (per pair)
- **Product Dimensions:** Approximately 1.57 x 1.57 x 0.16 inches
- **Quantity:** 2 knives per pack (Pair)
- **Compatible Material:** Wood and Wood Products
- **UPC:** 664252014651


9. CONTACT AND SUPPORT

For further assistance, technical support, or information regarding other CMT products, please visit the official CMT website or contact your local distributor. Specific warranty information for these knives is typically provided with the shaper cutter system they are designed for, or can be obtained from CMT directly.

CMT Official Website: www.cmtusa.com

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Related Documents - 690.019

	CMT-105 2.4G Wireless and Bluetooth Mouse User Manual User manual for the CMT-105 2.4G Wireless and Bluetooth Mouse, detailing setup, usage, common issues, and FCC compliance.
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	<p>CMT2300A-EQR Datasheet - CMT Integrated Circuit YIC Electronics</p> <p>Comprehensive datasheet for the CMT2300A-EQR integrated circuit by CMT. Provided by YIC International Co., Limited, featuring detailed specifications, stock availability, and related electronic components.</p>
	<p>CMT Condition Monitoring Product Catalogue</p> <p>Explore CMT's comprehensive product catalogue for advanced condition monitoring solutions, including oil analysis, vibration monitoring, and performance testing for industrial equipment.</p>
	<p>CMT 8" Locked Dado Pro: Precision Grooving Blade Set - Installation & Safety Guide</p> <p>Comprehensive guide for the CMT 8" Locked Dado Pro (Item # 230.312.08). Learn about installation, setup, safety precautions, and operation for creating precise grooves in wood, laminates, and plywood. Features EU and UNI EN 847 compliance.</p>
	<p>WEINTEK cMT Series: Edge Computing & Smart Manufacturing Solutions</p> <p>Explore WEINTEK's comprehensive range of cMT Series HMIs and IIoT devices designed for edge computing and smart manufacturing. Discover features like OPC UA, MQTT, Modbus, and EasyAccess 2.0 for seamless industrial automation.</p>
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