



HOFFMANN

OPERATING MANUAL

for

Hoffmann Dovetail Routing Machine

Model X-10

Hoffmann Machine Company, Inc.

1386 Drexel Road Valdese, NC 28690 USA

Phone: (828) 430 - 4510 Fax: (828) 430 - 4620

e-mail: info@Hoffmann-USA.com

www.Hoffmann-USA.com

Toll-free Technical Support: (866) 248 - 0100



1. Safety and Warning Labels

A number of important warning labels have been attached to this Dovetail Routing Machine for your information and protection.

For your own safety, please take a moment to locate and read all warning labels before operating this machine.

If a label has been removed, defaced or is illegible, please contact Hoffmann Machine Company, Inc. to request a free replacement.

NEVER REMOVE ANY SAFETY OR WARNING LABEL!





2. Safety Rules

Read and understand these safety rules before operating this machine!

1. Always disconnect the machine from the electrical power supply before attempting any adjustment, repair or maintenance procedure (change of router bit, depth-of-cut adjustment, removal of wood dust, etc.).
2. Do not allow power cord to lie on the floor, in the way of passing personnel or the machine operator. They may cause a trip hazard.
3. Always wear eye and ear protection as well as a respirator suitable for wood dust.
4. Remove or confine loose hair, clothing and jewelry to avoid entanglement.
5. Avoid a dangerous environment. Do not expose electrical equipment to rain. Do not use in presence of flammable liquids or gases.
6. Keep the area around the machine clean and free from scrap, sawdust, wood chips, oil and grease to avoid the danger of slipping.
7. Use only sharp and flawless original Hoffmann router bits.
8. Check the machine upon receipt as well as before every use for improper functioning and worn or damaged parts. Make sure the appropriate router bit is securely installed.
9. Broken or defective parts must not be used until replaced or repaired by a qualified technician.
10. When interrupting work or upon leaving the area, machine must be switched off.
11. Only trained and qualified personnel must be allowed to use machine.
12. Only original Hoffmann replacement parts must be used to rebuild machine.

3. Operator Training

The Hoffmann Dovetail Routing Machine model X-10 is to be operated, maintained and repaired only by properly trained and qualified personnel. It is imperative that the operator has carefully read and understood these operating instructions, and that he or she is aware of all potential risks resulting from operating this machine.

If the operator does not possess sufficient English language skills to completely understand all sections of this manual, especially the sections on Warning Labels and Safety Rules, it is the responsibility of the purchaser to retain a qualified translator to translate this entire manual.

All applicable safety procedures and rules, including but not limited to all OSHA Rules and Regulations, are to be adhered to.

Any unauthorized modification or alteration to this machine by the operator or owner, including the use of router bits other than Original Hoffmann Dovetail Router Bits, will immediately void the machine warranty. The manufacturer cannot be held liable if the machine is used for any operations other than outlined in this manual or if the machine is modified or altered.

Please refer to the complete Hoffmann Machine Company, Inc. warranty in the back of this operating manual.



4. General Machine Description

The Hoffmann Dovetail Routing Machine model X-10 is designed solely to process material for the Hoffmann Dovetail Joining System.

This machine is to be used only to process material for Hoffmann Dovetail Keys, size W-1, W-2 and W-3.

USE OF THIS MACHINE FOR ANY OTHER OPERATION IS DANGEROUS AND WILL VOID THE WARRANTY.

The manufacturer cannot be held liable if the machine is used for any operations other than outlined in this manual.

The Hoffmann Dovetail Routing Machine model X-10 is designed to rout dovetail shaped keyways in hard and softwoods as well as wood related sheet goods, such as particleboard, MDF, plywood, MDO, etc.

The machine is limited to routing keyways in 45 degree mitered parts only.

Parts with other angles or square or butt-joints cannot be processed.

4.1 Operation:

1. The moulding is placed against the left and right hand side of the center guide, with the back side of the material against the center guide and the miter tip resting against the front edge guide.
2. Adjustable toggle clamps are set and the moulding is clamped against the center guide.
3. The operator turns on the machine and holds the moulding tightly against the center fence with one hand. The motor is moved laterally with the other hand until the pre-set stops have been reached, it is then returned to the center position.
4. The motor is switched off, the clamps are released and the moulding removed from the machine.

WARNING:

Keep hands clear of router bit at all times. Bits have sharp edges and will cut even if the motor is turned off.

Touching a spinning router bit can cause severe hand injury!!!

Always turn the motor off when removing material and when adjusting the machine.

Never rout into material not clamped securely to the center guide.

5. Potential Risks and Dangers

Even when the machine is used as designed, and when the aforementioned safety rules are adhered to, the potential risk of injury must always be considered.

It is especially important to be aware of the following:

- The risk of pinching between stationary and moveable parts of the machine.
- The risk of pinching on the clamping devices of the machine.
- The risk of injury from sharp edges when handling, adjusting or changing the tooling.
- The risk of injury due to the inhalation of wood dust when operating the machine.
- The potential risk of injury on the electrical parts of the machine.

6. Toolkit

The machine is shipped with a Hoffmann toolkit, consisting of:

- Hex key 2.5mm
- Hex key 3.0mm
- Hex key 4.0mm
- Hex key 5.0mm
- Hex key 6.0mm
- Wrench 14mm
- Wrench 17mm
- One Safety Equipment Starter Kit (safety glasses, ear plugs, dust mask)

This starter kit is included as a courtesy to allow the machinery owner to start using this machine upon receipt. It is the machine owner's responsibility to supply additional safety equipment as needed, and the machine operator's responsibility to use all safety equipment as instructed.



7. Technical Data

Number of motors	one
Motor type	115 Volt, 60 Hz, 450 watt
Rotation	CCW (counter clockwise)
Revolutions per minute	27,000 rpm (idle)
Collet size	1/4" = 6.35mm
Air supply	none
Max. lateral routing travel	1 1/4"
Max. material thickness	1 1/2"
Max. material width	3"
Dovetail Key sizes	W-1, W-2, W-3 up to 1 1/4" length maximum
Operating noise	75.3 dB (A)
Machine dimensions	23" long, 16" wide, 10" high (incl. motor)
Table dimensions	16" long, 7" wide (overall)
Weight:	17 lbs.

8. Machine Installation

8.1 Unpacking – Inspection

Upon receipt, check the machine and shipping container for any damage. Report any transportation damage to the delivering carrier and indicate it on the bill of lading. Request an immediate inspection for assessment of damage. Claim should then be entered with the carrier. The carrier is solely responsible for any loss or damage during transit.

8.2 Placement

After unpacking, select a suitable location with enough room around the machine for safe and unobstructed workflow, cleaning and maintenance. It is best to place the machine on a sturdy workbench of comfortable height.

8.3 Cleaning

Clean the machine and remove the applied rust preventive coating with a cotton rag and thin oil (WD-40 or similar). Be careful when using liquids containing silicones – the finishing process of your material could later be impaired. Never use thinner or solvents to clean machine, damage could result.

8.4 Electric Connection

The machine power cord is equipped with a standard 115 Volt plug. Be sure the receptacle is in good working condition. Also, be sure the power cord does not obstruct any walkways. If applicable, use only three wire extension cords of the proper size. Replace damaged or worn power cords immediately.

NEVER ATTEMPT TO REPAIR A DAMAGED POWER CORD.

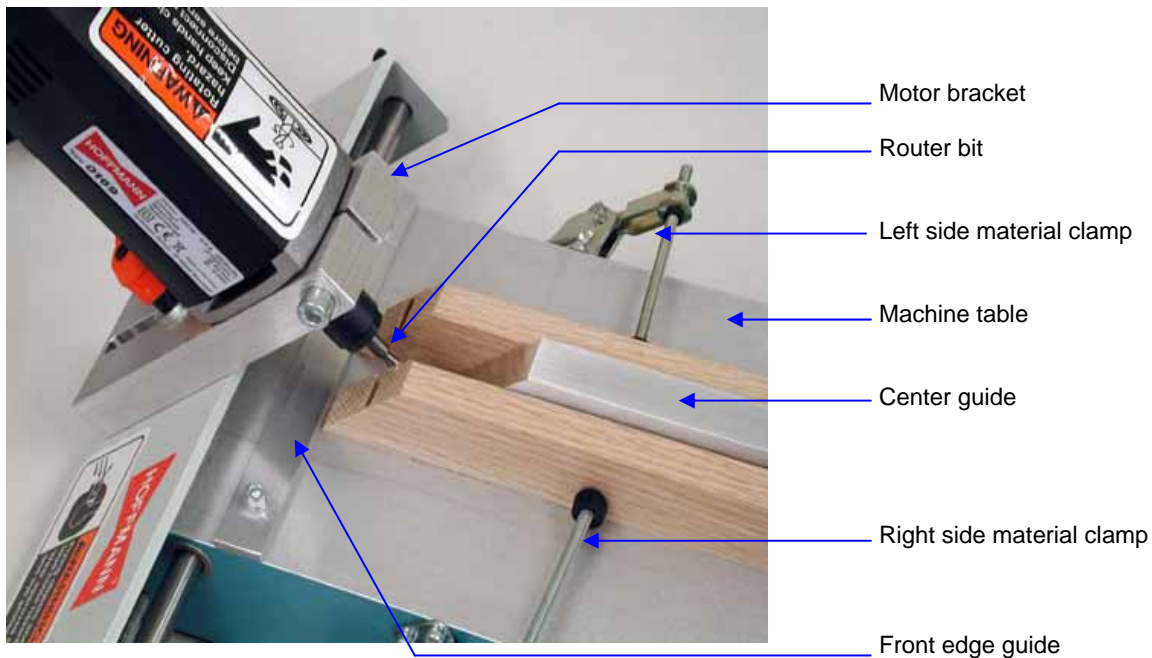


9. Machine Operation - Standard 45-degree miters with one key per joint

1. The moulding is placed against the left and right hand side of the center guide, with the back side of the material against the center guide and the miter tip resting against the front edge guide.
2. Adjustable toggle clamps are set and the moulding is clamped against the center guide.
3. The maximum lateral stroke of the motor carriage is adjusted with left and right hand adjustment knobs.
4. The operator turns on the machine and holds the moulding tightly against the center fence with one hand. The motor is slowly and carefully moved laterally with the other hand until the pre-set stops have been reached, it is then returned to the center position.
5. The motor is switched off, the clamps are released and the moulding removed from the machine.

WARNING:

Keep hands clear of router bit at all times. Bits have sharp edges and will cut even if the motor is turned off. Touching a spinning router bit can cause severe hand injury!!!
Always turn the motor off when removing material and when adjusting the machine.
Never rout into material not clamped securely to the center guide.





9.1 Machine Operation - Standard 45-degree miters with two keys per joint

Following the steps outlined above, the first keyway position is routed on all parts. The motor carriage is then re-adjusted for the second keyway by loosening the locking lever and moving the motor carriage up or down to the desired position. The second keyway is then routed as outline above.

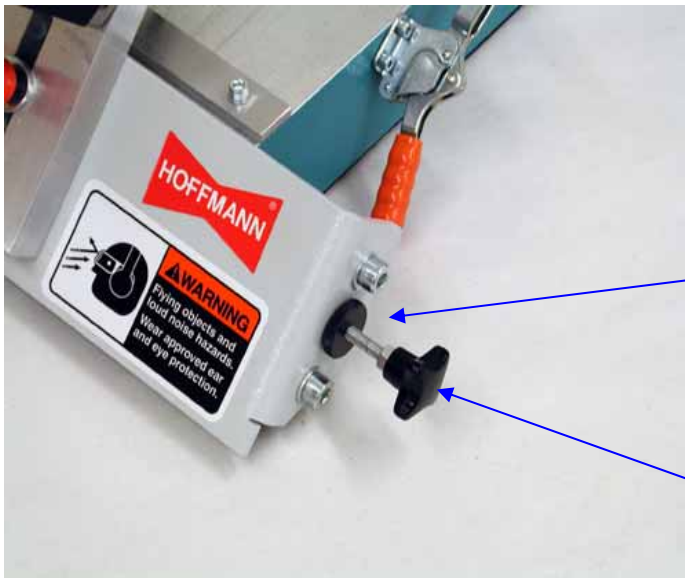
If profiled moulding is used, it may be necessary to adjust the lateral routing strokes to use longer or shorter Dovetail Keys in the second keyway locations.

Always use the longest Dovetail Keys possible for best results, e.g. 5/8" Keys are the right choice for 3/4" thick stock.



Motor carriage

Motor carriage lever handle



Lock disc

Adjustment knob for lateral (sideways) travel



10. Change of router bit

ALWAYS DISCONNECT THE ELECTRICAL POWER SUPPLY BEFORE ATTEMPTING ANY SERVICE, MAINTENANCE OR REPAIR WORK!

1. Verify that electrical power has been disconnected.
2. Loosen the socket head cap screw on the side of the motor bracket and carefully remove motor.
3. Use the included metric wrenches (14mm, 17mm) to open the ¼" collet and remove the old router bit.
4. Install new bit and tighten collet securely.

Distance between tip of router bit and top of collet (not collet nut) should be:

For W-1 router bit: 15.5 mm = 0.610"

For W-2 router bit: 17.0 mm = 0.669"

For W-3 router bit: 19.0 mm = 0.749"

5. Slide the motor back into the bracket and hand-tighten the socket head cap screw.
CAUTION: Do not over tighten this screw as damage to motor bearings may occur.
Tighten screw only enough to keep motor from twisting!
6. Make a test cut and verify proper settings by inserting a Hoffmann key.



Loosen this screw to remove motor.

Always unplug power cord when performing any service work.
Always remove motor from motor carriage to change router bits.

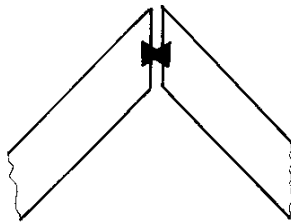


11.2 Fine Adjustment

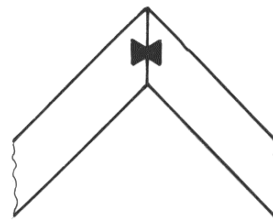
The operator can adjust the tightness of an assembled joint as well as the clamping force exerted by the key.

ALWAYS DISCONNECT THE ELECTRICAL POWER SUPPLY BEFORE ATTEMPTING ANY SERVICE, MAINTENANCE OR REPAIR WORK!

1. Verify that electrical power has been disconnected.
2. Loosen the socket head cap screw in the motor bracket.
3. Carefully slide the motor further toward the bracket to increase the routing depth, or move the motor out of the bracket to decrease the routing depth.
4. Only a small movement (0.1 – 0.5mm = 0.004 – 0.020") is necessary to make a noticeable difference. Increasing the depth will increase the "draw" or pull of the Key, resulting in a tighter joint.
5. Tighten the socket head cap screw – "hand tighten" only.
6. Re-connect the electrical power supply and make a test cut. If the new setting is unsatisfactory, the above steps are repeated.



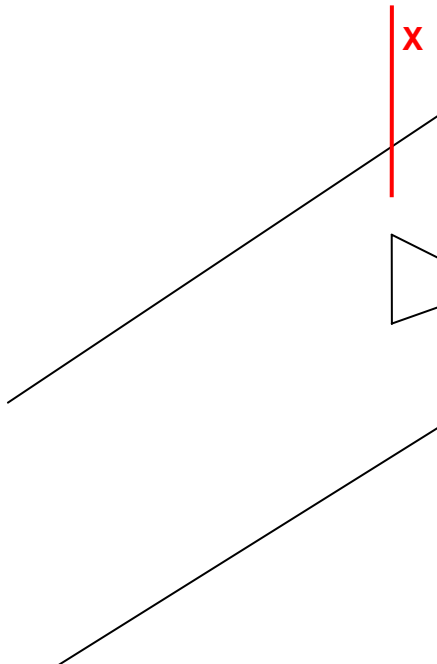
Wrong Setting



Correct Setting

11.3 Factory Settings

Measured from the face of the miter to the bottom of the keyway = dimension X



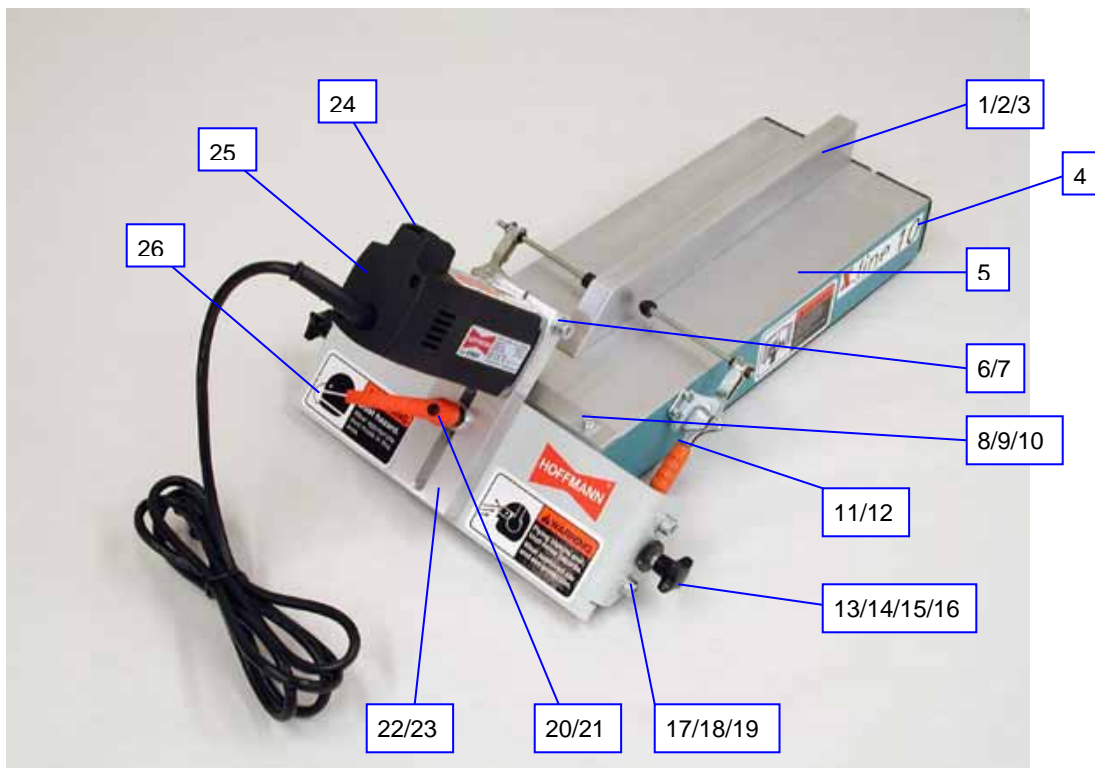
W-1	3.5mm = 0.1378"
W-2	5.1mm = 0.2001"
W-3	6.8mm = 0.2677"

12. Maintenance

ALWAYS DISCONNECT THE ELECTRICAL POWER SUPPLY BEFORE ATTEMPTING ANY SERVICE, MAINTENANCE OR REPAIR WORK!

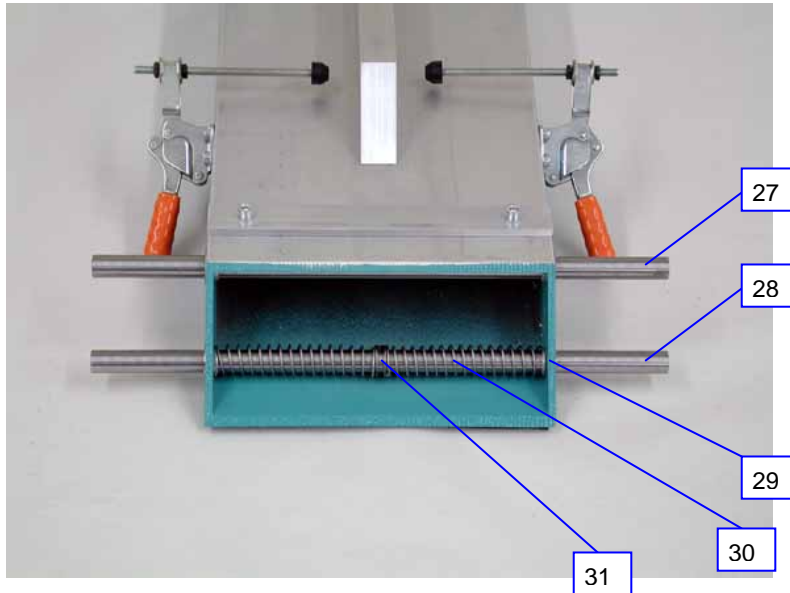
- All moving parts should be cleaned weekly and lubricated as necessary.
- The cooling vents in the motor housing must be kept free from dust and debris.
- Promptly replace damaged or worn router bits. Use only Original Hoffmann Dovetail Router Bits for best performance.
- All fasteners, nuts and bolts should be checked periodically and re-tightened as necessary.
- Periodically check the machine for damage or unusual wear. Never operate the machine if damaged.
- Do not modify the machine. Any modification will void the warranty and may cause a hazardous condition.

13. X-10 machine details





13.1 X-10 machine details

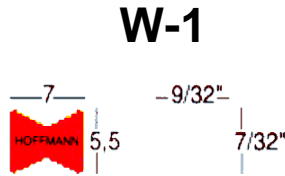


14. X-10 parts list

Number	Order Number	Description	
1	W5000030	center guide	
2	W4030830	hex head cap screw	M8 x 30
3	W4010088	washer	M8
4	W5000031	square cover plug	
5	W5000032	machine base	
6	W4050845	socket head cap screw	M8 x 45
7	W4010088	washer	M8
8	W5000033	front edge guide	
9	W4050510	socket head cap screw	M5 x 10
10	W4010055	washer	M5
11	W5000034	material clamp	
12	W4050410	socket head cap screw	M4 x 10
13	W4015555	adjustment knob	M5
14	W4020055	hexagon nut	M5
15	W4010580	threaded stem	M5 x 80
16	W4025555	lock disc	M5
17	W4050816	socket head cap screw	M8 x 16
18	W4010088	washer	M8
19	W4018888	spacer disc	
20	W4018300	lever handle	M8 x 30
21	W4010008	washer	M8
22	W5000035	motor carriage	
23	W4050610	socket head cap screw	M6 x 10
24	W3900015	ON-OFF switch for router motor	
25	W3900005	HOFFMANN router motor	
26	W5000036	steel bracket	
27	W5000037	upper guide rod	12 x 300
28	W5000038	lower guide rod	12 x 300
29	W5000039	bushing	12mm
30	W5000040	guide rod spring	
31	W5000041	steel pin	

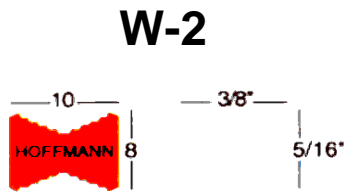


15. Hoffmann Dovetail Keys, standard brown plastic, without flange



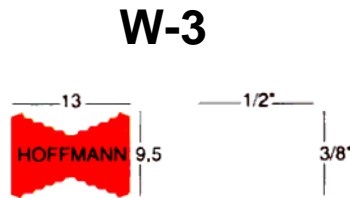
W-1

Part number	length in inches	length in mm
W 9100600	W1 – 1/4"	6.0mm
W 9101000	W1 – 3/8"	10.0mm
W 9101400	W1 – 9/16"	14.0mm
W 9101800	W1 – 3/4"	18.0mm
W 9102200	W1 – 7/8"	22.0mm
W 9103000	W1 – 1 1/4"	30.0mm
W 9104000	W1 – 1 9/16"	40.0mm
W 9105000	W1 – 2"	50.0mm
W 9106000	W1 – 2 3/8"	60.0mm



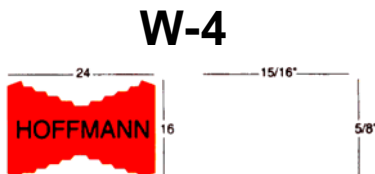
W-2

W 9200600	W2 – 1/4"	6.0mm
W 9200900	W2 – 3/8"	9.5mm
W 9201200	W2 – 1/2"	12.0mm
W 9201400	W2 – 9/16"	14.0mm
W 9201500	W2 – 5/8"	15.8mm
W 9201800	W2 – 3/4"	18.0mm
W 9202200	W2 – 7/8"	22.0mm
W 9202000	W2 – 13/16"	20.6mm
W 9202200	W2 – 7/8"	22.0mm
W 9202500	W2 – 1"	25.4mm
W 9203200	W2 – 1 1/4"	31.7mm
W 9203800	W2 – 1 1/2"	38.1mm
W 9204600	W2 – 1 13/16"	46.0mm
W 9206000	W2 – 2 3/8"	60.0mm



W-3

W 9301200	W3 – 1/2"	12.7mm
W 9391500	W3 – 5/8"	15.8mm
W 9301900	W3 – 3/4"	19.0mm
W 9302500	W3 – 1"	25.4mm
W 9303100	W3 – 1 1/4"	31.7mm
W 9303800	W3 – 1 1/2"	38.1mm
W 9304600	W3 – 1 13/16"	46.0mm
W 9305200	W3 – 2"	52.0mm
W 9306000	W3 – 2 2/8"	60.0mm
W 9308000	W3 – 3 1/8"	80.0mm
W 9301000	W3 – 4"	100mm



W-4

W 9404000	W4 – 1 9/16"	40mm
W 9406000	W4 – 2 3/8"	60mm
W 9408000	W4 – 3 1/8"	80mm
W 9401000	W4 – 4"	100mm

Note: Dovetail Keys in size W-1, W-2 and W-3 can only be used up to 1 1/4" length with the X-10 routing machine. W-4 sized Dovetail Keys cannot be used in any length.



16. Hoffmann Machine Company, Inc. Warranty

Hoffmann Machine Company, Inc. (hereinafter called "seller") guarantees all machines and parts of its own manufacture against defects in material and workmanship for a period of twelve (12) months from the date of shipment, under normal use and service by buyer (one eight hour production period per day). No other warranties are to be implied with respect thereto. The liability of seller under its warranty is limited to adjustment, in accordance with the warranty adjustment terms set forth below, for products which are found to be defective by seller in the form in which they were originally shipped. In no event will seller be liable for collateral, consequential or other damages of any kind or nature.

SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

It is buyer's sole responsibility to test, approve and authorize the use of the Hoffmann Dovetail Joining System and the Hoffmann Dovetail Keys or "Schwalbe" for any and all applications.

Warranty Adjustment Terms

1. Adjustments will be limited to claims which are presented promptly after the product is found to be defective, and within the aforesaid warranty period.
2. All products claimed to be defective will be subject to inspection and test by seller. Normally, seller will request return of products for inspection and test, however, seller reserves the right to make inspection and test on buyer's premises. Returns are to be made only as and if authorized by seller.
3. Buyer will pay all packaging, inspection, labor and transportation costs involved. Credit for the transportation costs only will be issued by seller provided adjustment subsequently is allowed.
4. No adjustments will be allowed for products which have been subjected to abuse, improper installation or application, alteration, accident or negligence in use, storage, transportation or handling; nor for products on which original identification markings have been removed, defaced or altered.
5. Final determination as to whether any adjustment is allowable, and as to the extent thereof, rests with the seller. Full adjustment, if allowed, normally will be made by replacement in kind on an exchange basis. Pro rata adjustment, if allowed, normally will be made by issuance of credit. In all cases, however, the seller reserves the right to make adjustments by repair, replacement or credit.
6. Replacement for products found subject to adjustment, whether new or repaired, will be shipped F.O.B. City of destination with transportation charges prepaid by seller.

Installation

Buyer shall install machinery purchased from seller at buyer's cost and expense, unless otherwise expressly stipulated in writing. At the request of buyer, seller will recommend competent engineers to supervise the installation, and to instruct buyer in the proper operation of the machinery and equipment. During such period of supervision and instruction, such personnel shall be deemed to be employees of the buyer who shall pay the wages, remuneration, board and traveling expenses of such personnel and shall not make seller liable, directly or indirectly, in any manner whatsoever, for any damages resulting from any act of commission or omission or any misfeasance or malfeasance, on the part of said personnel.



17. Terms and Conditions of Sale

1. Application and Scope:

The terms and conditions contained herein apply to proposals made, and to purchase orders received, by HOFFMANN MACHINE COMPANY, INC. (hereinafter called "Seller"), and sets forth the entire agreement between the parties hereto, and supersedes all communication, representations or agreements, whether oral or written, between the parties hereto with respect to the subject matter herein, and no agreement or understanding varying or extending the terms or conditions hereof will be binding unless expressly agreed to in writing by Seller. No conditions stated by Buyer in its purchase order or orders shall be binding upon Seller if in conflict with, inconsistent with, or in addition to, the terms and conditions contained herein, unless expressly accepted in writing by Seller. Seller's failure to object to any provision contained in any communication or purchase order from Buyer shall not be deemed a waiver of the terms and conditions herein. All orders or contracts are subject to approval and acceptance by Seller at its main office in North Carolina. These Terms and Conditions are within the sole discretion of Seller and are subject to change with or without prior notice.

2. Quotations and F.O.B. Point:

Prices are quoted and all sales are made F.O.B. Sellers facility and, unless otherwise indicated in the proposal, prices quoted are effective for a maximum thirty (30) days after the date of any proposal.

3. Terms of Payment:

All invoices are due and payable as set forth on the front of the invoice. Each delivery shall be considered a separate and independent transaction and payment thereof shall be made on terms set forth on invoice covering same. If delivery is delayed by Buyer, payment shall become due when Seller is prepared to make delivery. If, in the sole judgment of the Seller, the financial condition of Buyer at any time does not justify continuation of manufacture or of delivery as originally specified, Seller may vary terms of payment by requiring full or partial payment in advance, or otherwise, or may ship to Buyer's order against sight draft with bill of lading attached.

4. Taxes:

Unless the quotation expressly provides otherwise, the amount of any present or future Federal, State or local sales, excise or other tax applicable to the products purchased hereunder, or to the manufacture or sale thereof (including, without limitation, state or local privilege or excise taxes based on gross revenue), and any taxes or amounts in lieu thereof paid or payable by Seller in respect of the foregoing (excluding, however, taxes based on net income), shall be added to the purchase prices and shall be paid by Buyer. In lieu thereof, Buyer may provide Seller with an appropriate tax exemption certificate acceptable to the taxing authorities.

5. Warranty:

The products covered herein are warranted, for a period of twelve (12) months from date of shipment, against defects in material and workmanship under normal use and service by Buyer. The liability of Seller under its warranty is limited to adjustment, in accordance with the Warranty Adjustment Terms set forth below, for products which are found to be defective by Seller in the form in which they were originally shipped. In no event will Seller be liable for collateral, consequential or other damages of any kind.

SELLER MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

6. Warranty Adjustment Terms:

- (a) Adjustments will be limited to claims which are presented promptly after the product is found to be defective, and within the aforesaid warranty period.
- (b) All products claimed to be defective will be subject to inspection and test by Seller. Normally, Seller will request return of products for inspection and test, however, Seller reserves the right to make inspection and test on Buyer's premises. Returns are to be made only as and if authorized in writing by Seller.
- (c) Buyer will pay all packaging, inspection, labor and transportation costs involved. Credit for the transportation costs only will be issued by Seller provided adjustment subsequently is allowed.
- (d) No adjustments will be allowed for products which have been subjected to abuse, improper installation or application, alteration, accident or negligence in use, storage, transportation or handling; nor for products on which original identification markings have been removed, defaced or altered.
- (e) Final determination as to whether any adjustment is allowable, and as to the extent thereof, rests with Seller. Full adjustment, if allowed, normally will be made by replacement in kind on an exchange basis. Pro rate adjustment, if allowed, normally will be made by the issuance of credit. In all cases, however, Seller reserves the right to make adjustment by repair, replacement or credit.
- (f) Replacement for products found subject to adjustment, whether new or repaired, will be shipped F.O.B. city of destination with transportation charges prepaid by Seller.

7. Installation:

Buyer shall install machinery purchased from Seller at Buyer's cost and expense, unless otherwise expressly stipulated in writing.

8. Packaging and Shipment:

All products shipped hereunder will be packaged in accordance with standard commercial practice for domestic shipment. Seller's liability as to delivery ceases upon making delivery of products purchased hereunder to carrier at Seller's facility, in good condition, the carrier acting as Buyer's agent. All claims for damages must be filed with the carrier or Buyer's insurer as appropriate. Seller will select the method of shipment unless Buyer does so in writing at least ten (10) days in advance of the scheduled delivery date. Equipment held for Buyer because of Buyer's delay in acceptance, shall be at Buyer's risk and expense. Seller does not assume liability for shipping in the least expensive manner.



17. Terms and Conditions of Sale (continued)

9. Deliveries:

It is the desire of Seller to meet requested delivery schedules, however, Seller shall not incur any liability, consequential, collateral or otherwise, due to any delay or failure to deliver for any reason, other than arbitrary refusal by Seller to perform. Any delivery indication furnished by Seller only represents the best estimate of the time required to make shipment.

10. Assignment:

Buyer shall not assign this purchase order or any interest herein or any rights thereunder, without the prior written consent of Seller.

11. Termination:

Seller may terminate the purchase order or any part thereof herein referred to or any other purchase order or orders then outstanding by written, telegraphic or electronic mail notice to Buyer if Buyer becomes insolvent or is subject to proceedings under any law relating to bankruptcy, insolvency or relief of debtors. Upon such termination Seller shall be entitled to receive reimbursement for reasonable termination charges.

12. Cancellations or Returns:

Buyer shall not cancel any order nor return any equipment without first obtaining the written consent of Seller. In any event, in case of refusal or inability of Buyer to accept a delivery, the Buyer shall nevertheless be liable for freight, express, storage, handling, restocking and any other expense resulting. In no event are orders for machines or parts built to customers' specification subject to cancellation and Buyer shall be liable for work done and materials used.

13. Specifications:

- (a) Phone order specifications are filled at Buyer's risk unless confirmed in writing prior to commencement of manufacture.
- (b) If equipment is found not to meet original specifications, Seller shall have a reasonable time to make adjustments.

14. Law Governing:

Buyer's purchase order shall be governed by and construed according to the laws of the State of North Carolina. The courts of the State of North Carolina shall have jurisdiction over any controversy that may arise out of the dealings between Buyer and Seller.

15. Force Majeure:

Seller shall not be liable under this agreement by reason of its delay in the performance of or failure to perform any of its obligations hereunder if such delay or failure is caused by acts of God or the public enemy, riots, incendiaries, interference by civil or military authority, compliance with government laws, rules and regulations or any fault beyond its control.

16. Acceptance:

Payment for or a deposit made for the products shall constitute a contract embodying all of terms and conditions stated herein.

17. Ownership:

All products remain the sole property of the Seller until all charges, including all transportation, crating and installation costs, are paid in full.

18. Severability:

The provisions of these Terms and Conditions are intended to be severable. If, for any reason, any of the above provisions should be found unenforceable or invalid in whole or in part, in any jurisdiction, such provision be ineffective only to the extent the determination of invalidity or unenforceability in that jurisdiction. Any such determination shall not affect the enforceability or validity of the remaining provisions.

19. EOE

All errors and omissions are excluded. Changes to the design and technical specifications of this equipment are reserved.