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USERS AND MAINTENANCE MANUAL FOR M70, M80, AND M100 CORE CUTTERS

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USER'S GUIDE AND MAINTENANCE MANUAL FOR M70, 80, and 100 CORE CUTTER

Version 2.0

September

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A. INTRODUCTION

A.1 Introduction

We thank you for choosing Double E Company Manual Core Cutters and are pleased to have you as a customer. We are confident that our product will provide you with years of satisfaction. For optimal performance, please use and maintain your Core Cutter as outlined in this manual.

We recommend that you read this manual carefully and refer to it whenever a problem may arise. Our Technical Support department is also always available for advice and assistance. This manual describes the installation, operation, usage precautions, and detailed information about this product's accessories and options.

The product must be used according to the instructions. Keep this manual as a reference for the future.

A.2 Table of Contents

A.3 Important

- Do not use this product before having read and understood the whole content of this manual.
- Double E Company has done everything possible to make this manual complete and correct.
- Please transfer this manual to subsequent users if the product is lent or sold.
- Should this documentation or the warning labels applied on the device be lost or damaged, please request replacements from the supplying company.

A.4 Warranty

See general terms of sale.

B. SAFETY

B.1 Safety Instruction- Symbology

• For safe operation of the Core Cutters, carefully read these safety instructions before use.

• Follow every WARNING and ATTENTION note, described in this section, as they are extremely important for safety.

• In this manual, warnings and are indicated by the following signal word conventions.

Indicates a potentially dangerous situation that, if not avoided, is almost certian to cause serious injury or death.

Indicates a potentially dangerous situation that, if not avoided, can cause moderate to serious injuries, or even death.

Indicates a potentially dangerous situation that, if not avoided can cause minor to moderate injuries or damage to the equipment.

Highlights information needed to ensure proper use of this device.

B.2 Safe Operation of Equipment

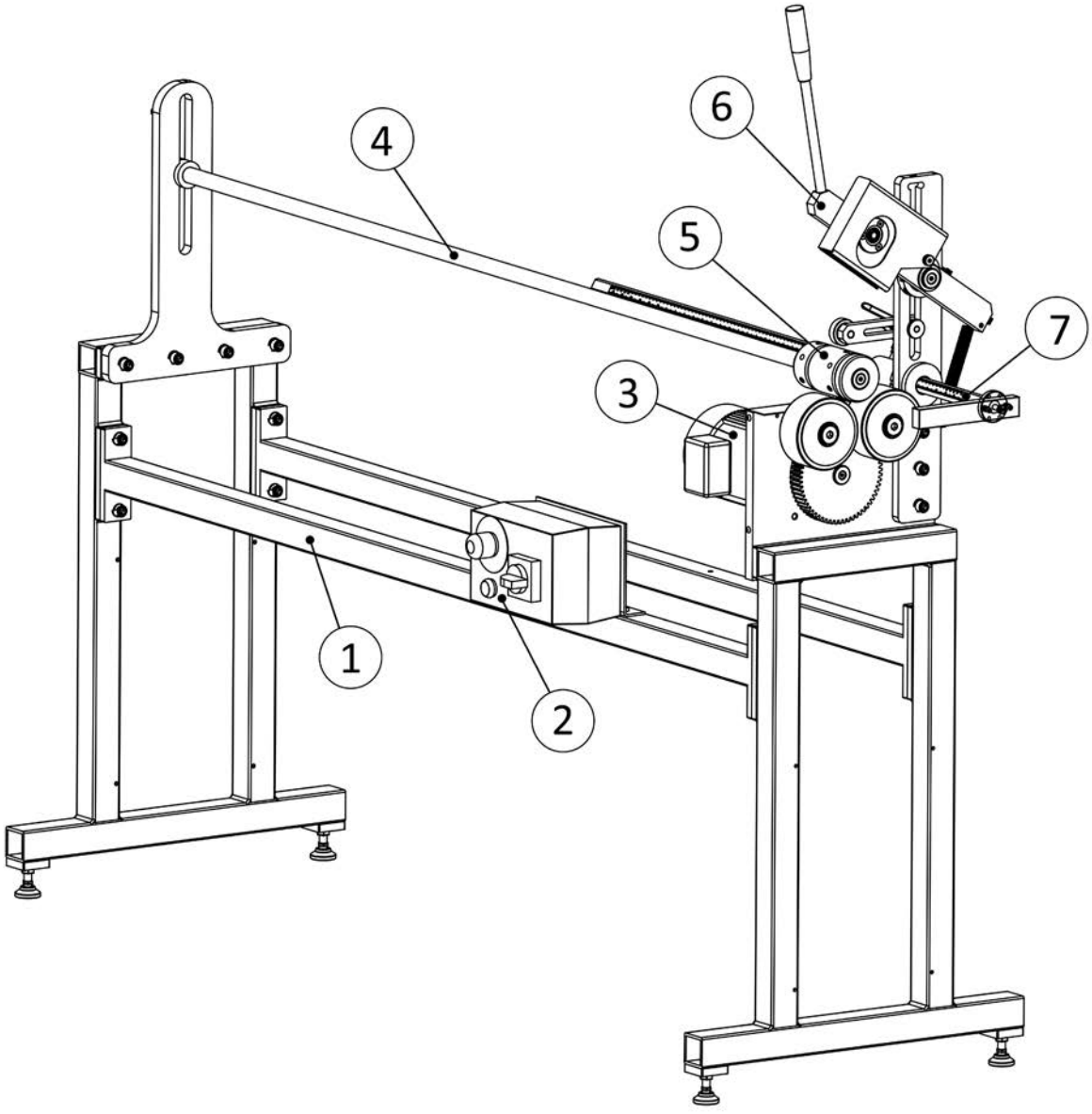
Double E Company designs and manufactures core cuutters with maximum safety in mind. Please take careful note of the following rules for safe operation:

- Double E recommends always using the core cutter carefully without abusing it. Avoid strong collisions and/or accidental impacts with foreign bodies. These collisions can damage the machines internal and external parts.
- There is risk of injury or pinching from the rotation of the cutter during cutting. Keep sufficient distance during cutting and do not touch any part of the moving machine during rotation.
- Do not wear loose hair or clothing near rotating parts for risk of entanglement.
- Do not use the core cutter in working conditions different than stated in the specifications table or on any notes on the assembly drawing.
- Do not exceed the operating loads of the machine as specified on the customer quotation and/or assembly drawing. This voids the warranty and can be unsafe.
- Make sure all fasteners and guards are in place before operation.

All replacement parts on this core cutter should be original equipment supplied by the Double E Company.

C. TERMINOLOGY

C.1 Core Cutter Components



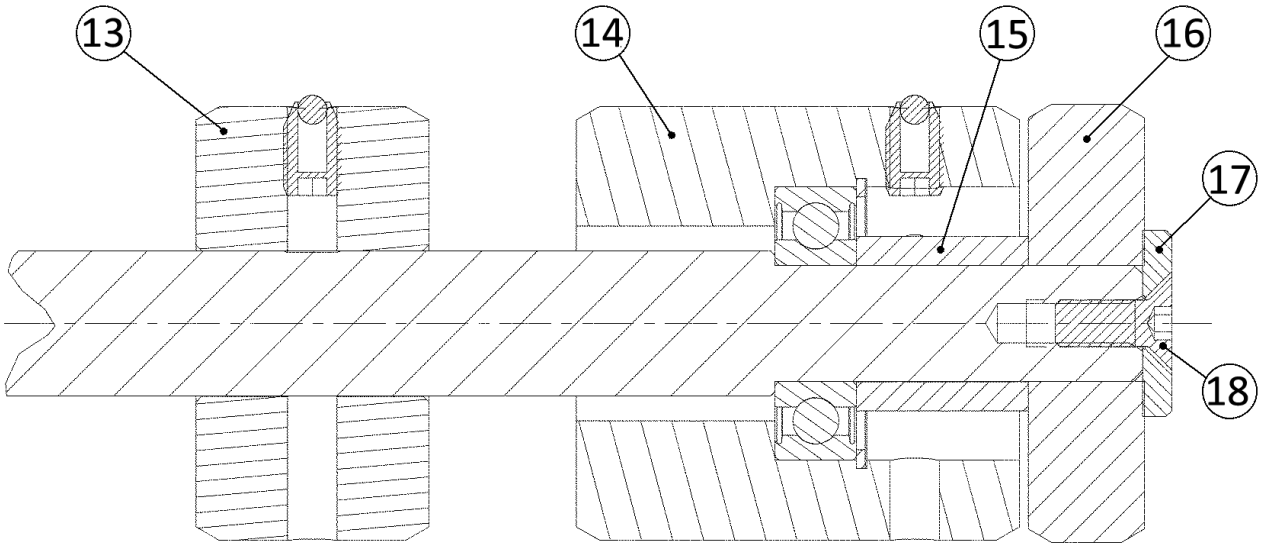
1. Machine Frame
2. Control Box
3. Motor/Gearbox
4. Core Support Bar
5. Core Adapter Set
6. Cutting Assembly
7. Length Stop

D. OPERATING INSTRUCTIONS

D.1 Installing Core Adapters

WARNING

Do not perform any installation while the main switch is on



Install the sliding core adapter (13), the stationary core adapter (14), the spacer (15), and anvil (16) on the core support bar. Use the washer (17) and flathead socket screw (18) to clamp the pieces on the bar securely. Insure the sliding and stationary core adapters rotate freely.

HINT: For quicker diameter change, leave the 6” and 3” sliding adapters on the bar at all times.

Slide a core onto the support bar. Be sure the bar is level with the core resting on the drive rolls. If not, raise or lower the left end of the bar as necessary. Lock it in place with the clamping lever.

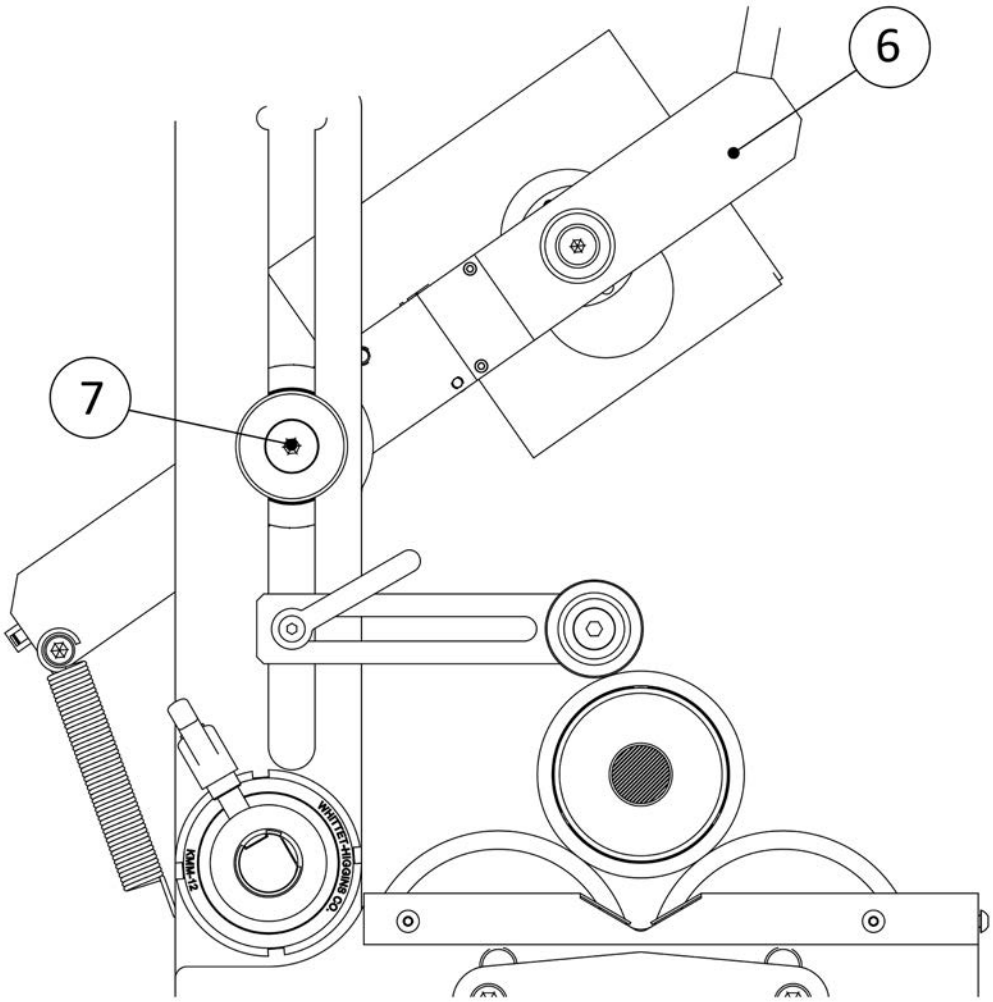
NOTICE

Be careful working in the area around the guarded cutting blade.

D.2 Setting Cutting Assembly Height

WARNING

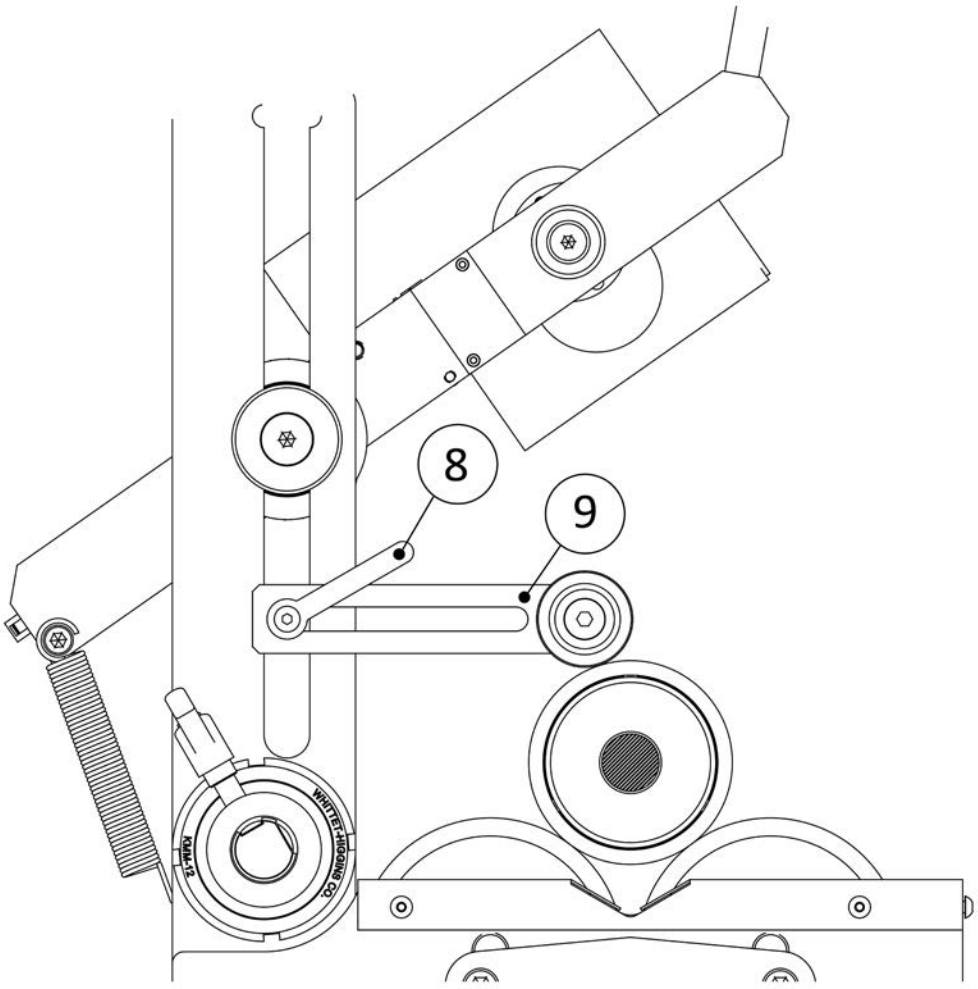
Do not perform any installation while the main switch is on.



With the core still on the bar, loosen bolt 7 and adjust the height so the cutting arm 6 is horizontal when the blade contacts the core. When completed, retighten olt 7 to lock the assembly at the correct height.

D.3 Adjusting Core Stops

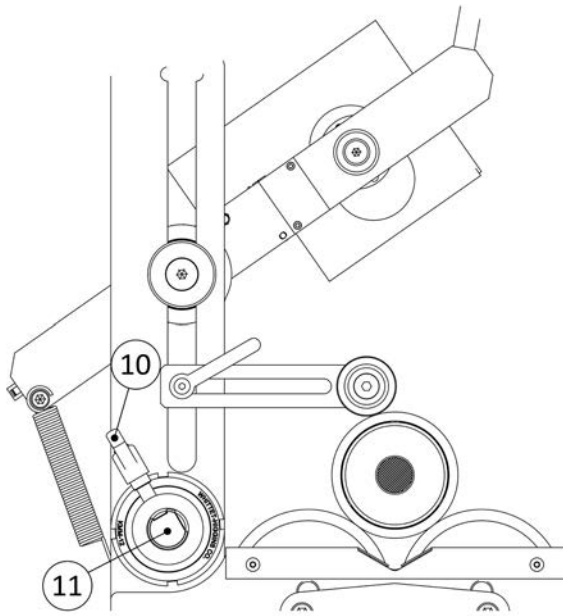
WARNING *Do not perform any installation while the main switch is on.*

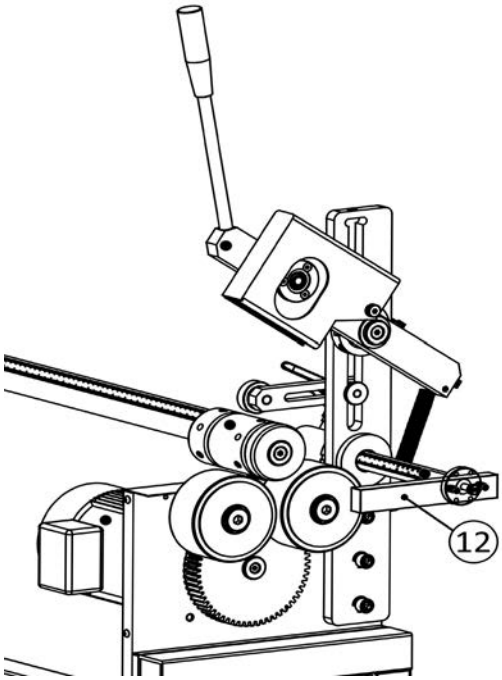


The core stop help keep the core from bouncing when cut. Loosen lever 8 to allow the stopsto slide. Slide arm 17 so the bearing is lightly touching the core above it's center point. Tighten lever 8.

D.4 Adjusting Core Length Bar

WARNING *Do not perform any installation while the main switch is on.*



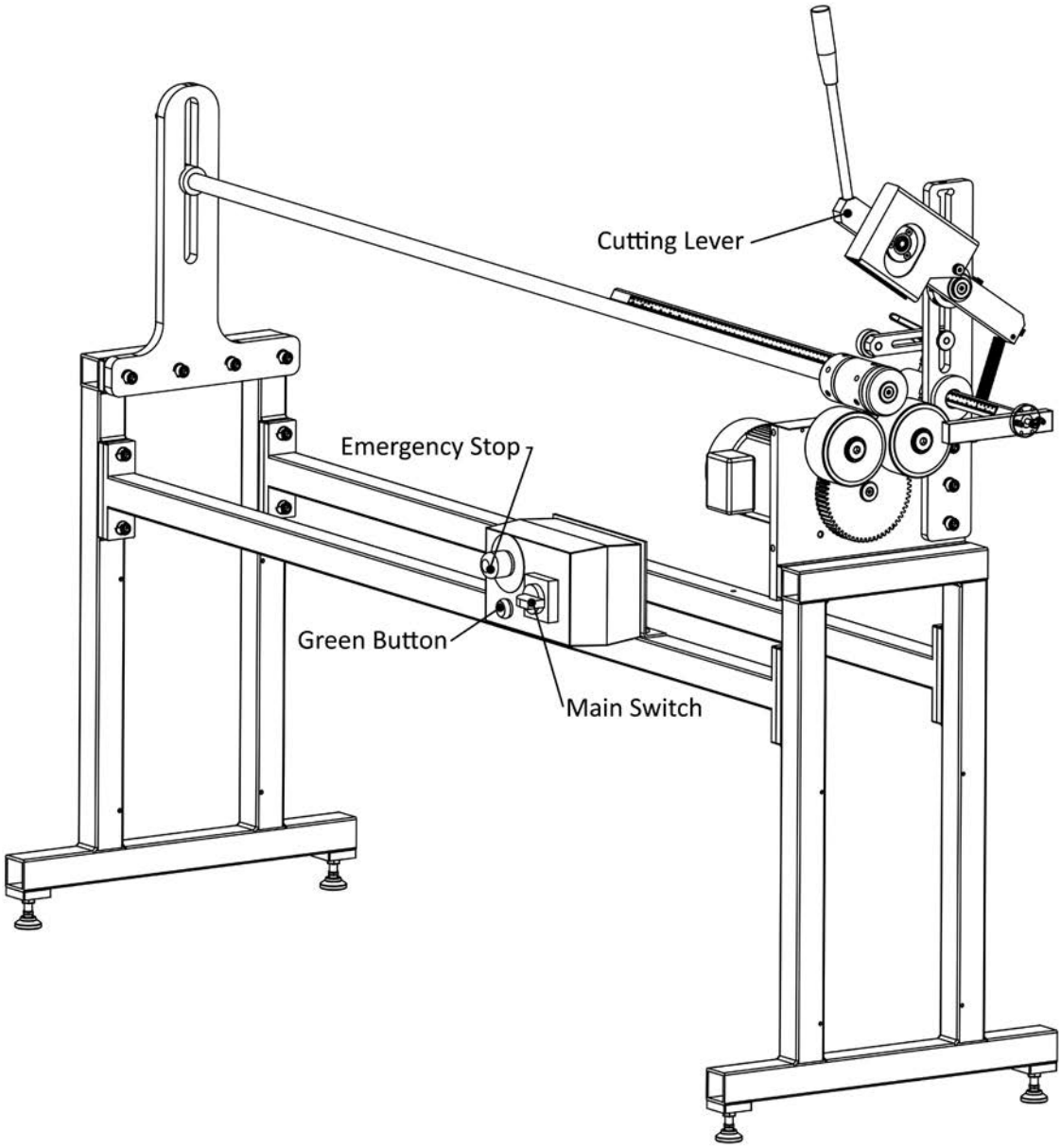


The core length bar (11) slides to allow setting the core length. It is provided with a rule and is locked with lever 10. The stop (12) is located on the right and should be flipped out of the way before the cut is made to prevent jamming the cut core.

D.5 Making the Cut

WARNING *Do not perform any installation while the main switch is on.*

Once the core is loaded on the support bar and the adjustments have been made, the cutting process is easy. Be sure the main switch is set to on and the Emergency stop switch is not depressed. Pressing the Green button while pulling evenly down on the cutting handle will start the core rotating. Pulling down to force the knife through the core will complete the cut.



E. PRODUCT SPECIFICATIONS

E.1 Technical Specifications

WARNING

Do not exceed the operatng parameters of the core cutter as listed here. This will void the machine guarantee and could cause injury.

The M70, M80 and M100 core cutters designed for dust-free manual core cutting of cardboard cores and soft plastic cores tested and approved by Double E. It uses circumferential propulsion to cut cores; the circular knife is stationary while pressing against a core and then it is cut.

This machine is designed only for industrial use only. Do not operate in an unventilated area.

TECHNICAL DATA	
Length	75, 85, or 105 Inches
Width	19 Inches
Height (fixed part)	55 Inches
Weight	275 Pounds
Supply Voltage	110 or 220 VAC (see nameplate)
Control Voltage	24 VDC
Frequency	50/60 Hz.
Installed Power	1 HP
Motor-Single Phase Asychronous	1100 RPM

Cutting material: cardboard cores with inner diameters from 3.0” to 6.0” with a maximum wall thickness of 1/2”.

Maximum length of cut cores: 70”, 80”, 100” depending on model.

F. MAINTENANCE

F.1 Routine Inspection

Perform routine inspection *weekly*. Routine inspection can usually be accomplished without disassembly or removal of parts from the machine. The purpose of routine inspection is to ensure that the machine is functioning properly prior to being used. Check the electrical system to ensure that the machine can not start without intention and check the functioning of the emergency stop button. Ensure that all fasteners are tightened properly and are not missing. Check for worn or broken parts; if necessary, replace. Check the rubber drive rollers for dirt and dust and clean if necessary.

F.2 Annual Maintenance

Perform annual inspection/maintenance *yearly.* Ensure that all fasteners are tightened properly and that the safety systems work properly. The machine condition should be evaluated and any worn or dirty parts replaced or cleaned. The area around the machine should be kept free of dust and dirt so the operator can freely move without risk of tripping over cut cores or components.

F.3 Non-Routine Maintenance

If the product is used under normal conditions and inspected regularly, it is rare that any non-routine or extraordinary maintenance will be needed. In the event that it is necessary, it is recommended that you contact Double E Company Technical Support at 508-588-8099 extension 571.

F.4 Decomissioning

If the product is withdrawn or removed from service, it is necessary to make all at-risk components harmless through proper demolition. These operations must be carried out in accordance with the provisions existing in the nation in which the product will be disposed.

G. TROUBLESHOOTING

G.1 Mechanical Troubleshooting

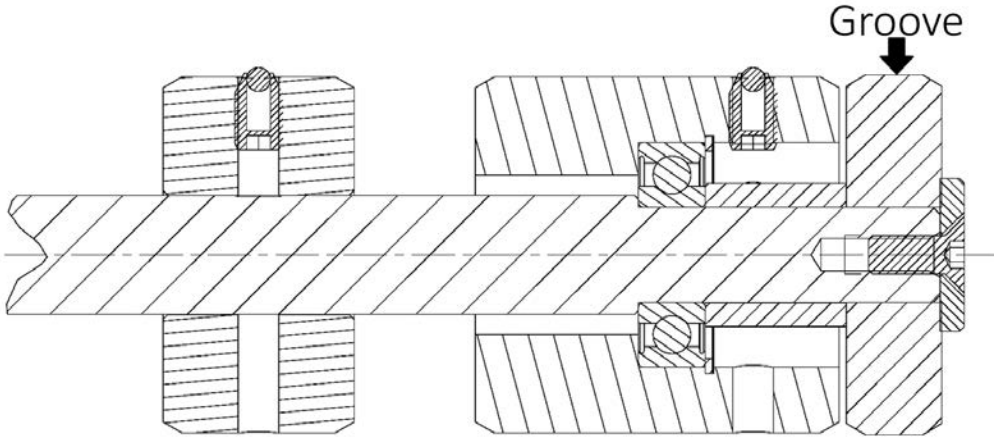
I. Core is not completely cut or burrs on the ID of the cut

Possible Causes:

1. Anvil is worn out meaning the notch is greater then the 1mm depth set at the factory.

How to Proceed:

Rotate or replace the anvil



2. The inside core diameter is larger than the allowable core tolerance (core tolerance is + / - 0.3 mm). Consequently, the core is not properly gripped during the cutting operation.

How to Proceed:

If the customer's cores are out of tolerance by more than + / - 0.3 mm, the cores ID should be measured precisely and a new anvil should be ordered according to the actual size. Alternatively, adjust the ball catches on the adapters to better grip the core.

3. Knife does not go down completely and consequently it doesn't cut a core completely.

How to Proceed:

Loosen the height locking handle and position the cutter head properly so it can completely penetrate the core. Retighten the locking handle

4. Knife blade is worn out, blunt or it is jagged.

How to Proceed:

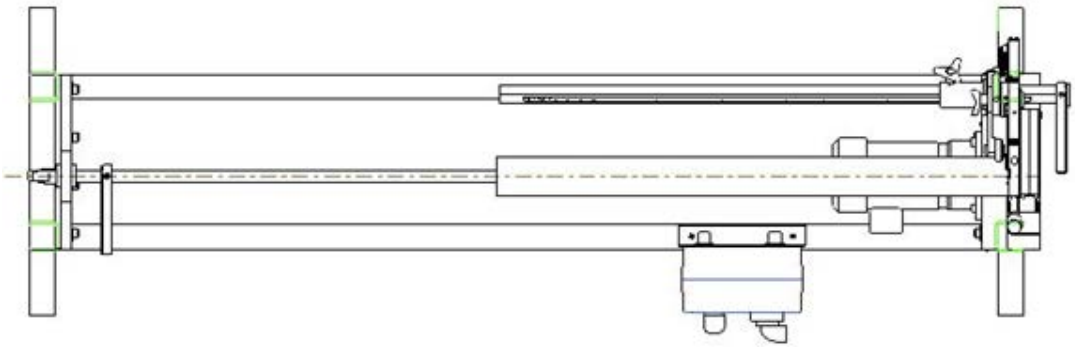
Rotate or replace the worn out knife blade with a new one.

II. Screw Cutting

During the cutting operation, the core moves parallel to its axis. As a result, the knofe does not cut through the core, rather it makes a cut similar in appearance to a screw thread

Possible Causes:

1. The Core Support Bar is not level or straight



How to Proceed:

Confirm that the core bar assembly is not bent. Adjust the horizontal location by loosening and adjusting the core bar assembly support to the center of the gear drive. If the core bar assembly is bent, attempt to straighten it. If this procedure fails, replace the core bar assembly.

III. Difficulty putting core onto Core Support Bar

Possible Causes:

1. The inside diameter of a core is too small (core ID is out of the required tolerance + / -0.3mm).

How to Proceed:

Measure the core ID the customer uses and order a new set of core adapters according to customer's needs.

IV. Core is not in proper contact with the drive rollers

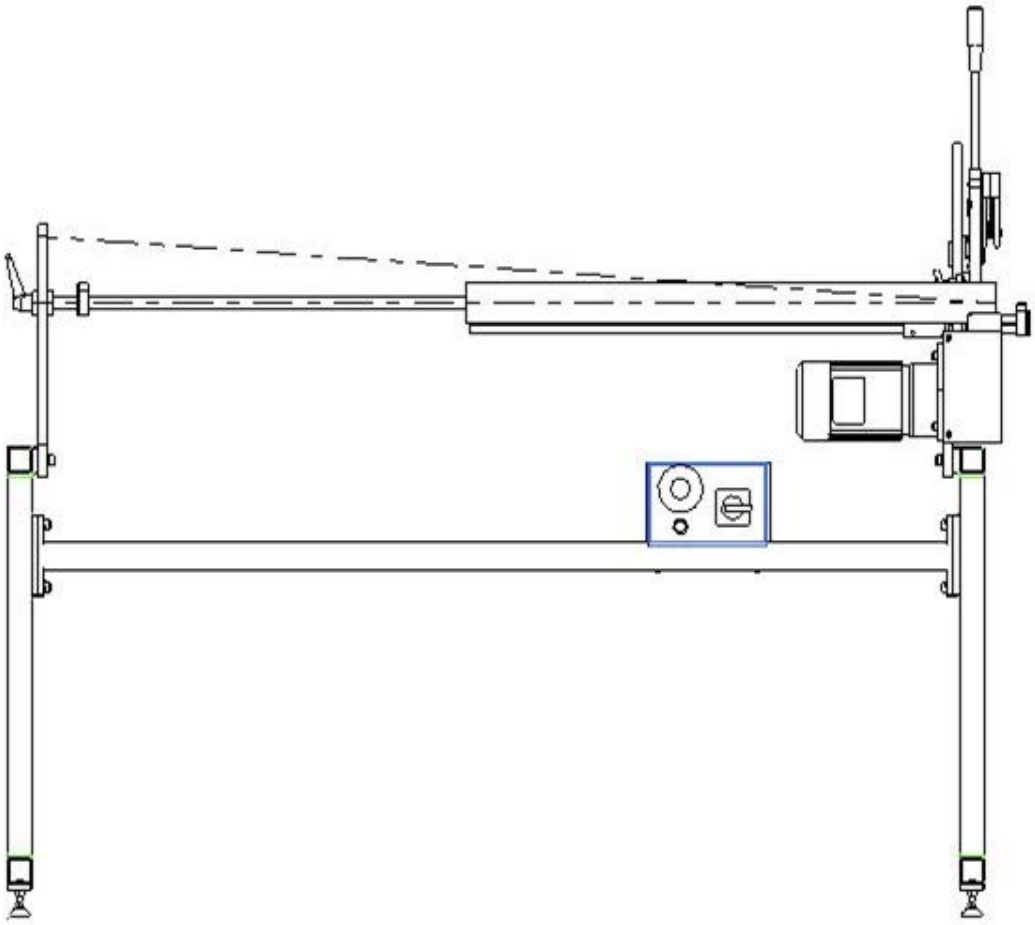
As a result the core slides on the drive rollers. After cutting a core, a section of the original core stays on the machine and moves to the right or to the left.

Possible Causes:

1. The core bar assembly of the core cutter is not parallel to the machine frame.

How to Proceed:

Loosen the core bar assembly fastener and adjust to a level position, placing it in parallel to the machine frame, tighten fastener. This operation should be carried out with a core placed on the machine.



G.1 Electrical Troubleshooting

I. Motor does not work after turning on the machine and pressing the START button while pulling the cutting arm assembly down

Possible Causes:

1. Micro-switch placed inside the knife cover K2 is damaged.

How to Proceed:

Check if the micro-switch is jammed. If it is jammed remove the two screws and micro- switch cover and adjust its position so it does not jam.
If this procedure does not yield satisfactory results, replace the micro-switch.

2. Current protection breaker inside the electrical box has been activated.

How to Proceed:

Press the black reset switch on the Q1 circuit breaker.

3. The S1 contactor is damaged.

How to Proceed:

Check with a multi-meter if the contacts operate properly. Check with a multi-meter if contactor coil is damaged..

5. EMERGENCY STOP switch, contact K1 - (red contact) - is damaged.

How to Proceed:

Check with a multi-meter if the contacts operate properly. If needed replace them.

6. Power Supply is damaged or there is short-circuit in the 24VDC circuit.

How to Proceed:

Check if there is 24VDC at power supply output and if the green diode is illuminated.
If the diode is not illuminated, check if 120 VAC is at the power supply input. If it is present, the power supply is damaged. If the green LED is blinking, the 24VDC circuit has an electrical short present. Trace the short and repair

H. MANUFACTURERS DECLARATION

Buyer shall afford Double E Company prompt and reasonable opportunity to inspect any goods as to which a claim is made and Double E Company shall have the right of final determination of the cause and existence of any defect under this warranty. No material may be returned to Double E Company without Double E Company's express prior permission in the form of a return authorization number.

Correction of non-conformities, in the manner and for the period provided above, shall constitute fulfillment of all liabilities of Double E Company to Buyer with respect for the goods, whether based on contract, negligence, strict tort, or otherwise.

I. RETURNS

Warranty and non-warranty returns are initiated through the issuance of a return material authorization (RMA) number from an authorized Double E Company sales or service/support representative. This can be obtained by calling Double E Company in West Bridgewater, MA at 508-588-8099.

The RMA number should be clearly evident on the shipping label and/or invoice and the package should be shipped freight prepaid. If questions arise or if additional information is required, please call the Inside Sales department at 508-588-8099

Product returns should be sent to the address below:

Double E Company, LLC
319 Manley Street
West Bridgewater, MA 02379 ATTN:
RMA # _____

Notes