

DRILL PRESS

VERSION 3.1



AUTODESK
PIER 9

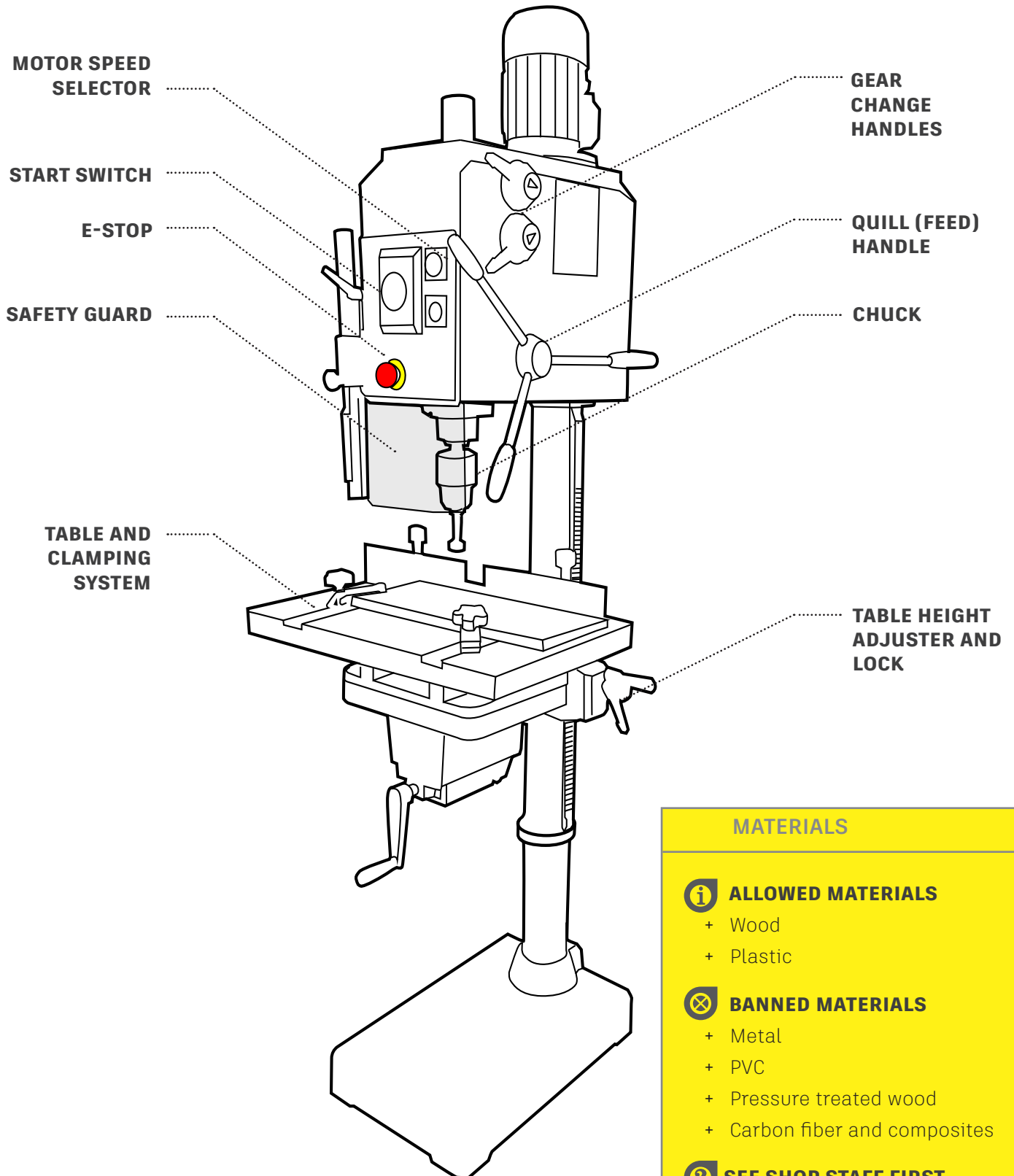
DRILL PRESS

MACHINE
INTRODUCTION

VERSION 3.1

THE DRILL PRESS MAKES CYLINDRICAL HOLES IN MATERIAL.

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MATERIALS

i ALLOWED MATERIALS

- + Wood
- + Plastic

⊗ BANNED MATERIALS

- + Metal
- + PVC
- + Pressure treated wood
- + Carbon fiber and composites

? SEE SHOP STAFF FIRST

- + All other materials

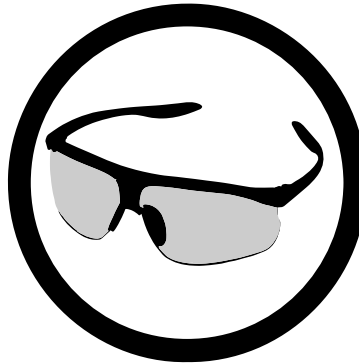
DRILL PRESS

KEEP IT SAFE

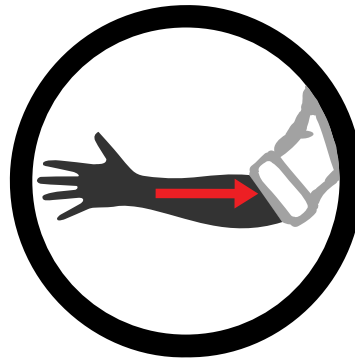
VERSION 3.1

TAKE PROPER SAFETY PRECAUTIONS WHEN OPERATING THE DRILL PRESS.

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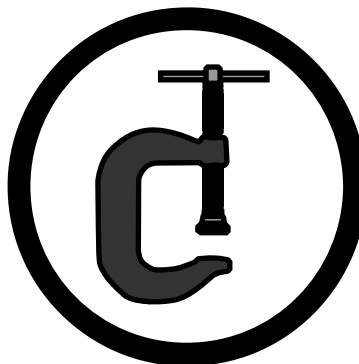


Always wear safety glasses.



Always wear short sleeves, or rolled sleeves, pull back and tuck in long hair, remove jewelry and lanyards, etc.

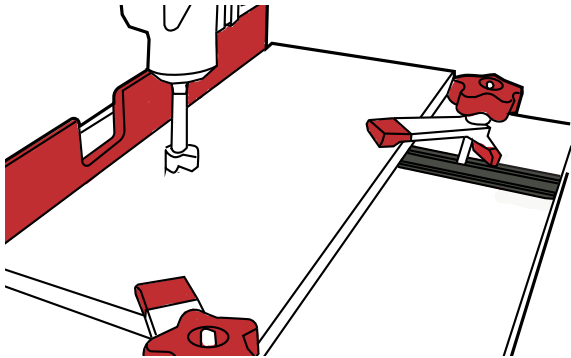
Do not wear gloves.



Clamping or using the fence is required for all work.

PROPERLY POSITION THE WORK BEFORE OPERATING THE WOOD DRILL PRESS.

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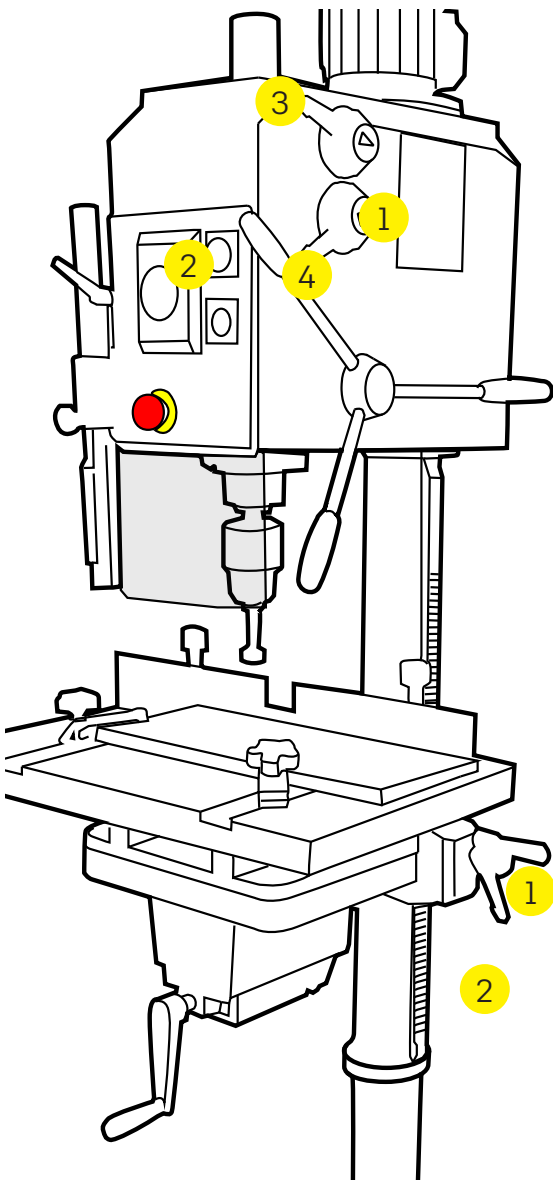


USING CLAMPS

Always clamp your workpiece. The drill bit can grab, and cause it to spin dangerously.

The red hold downs built into the table make it easy to anchor your work. Using the fence adds a layer of security.

There are a variety of clamping options available; ask Shop Staff if you need assistance.



CHANGING SPEEDS

All speed changes must happen with the **motor off**.

1. Use the speed chart to determine settings.
2. Move the motor speed selector to 1500 or 3000.
3. Move the upper gear change handle to A or B.
4. Move the lower gear change handle to C or D.
 - ▶ If a handle is difficult to engage, rotate the chuck by hand while moving the handle.

ADJUSTING THE TABLE HEIGHT

All adjustments must happen with the *motor off*.

1. Move the lever to unlock the table.
 - ▶ The table can be rotated on the column when unlocked.
2. Rotate the handle to raise or lower the table.
3. Lock the table.

TYPES OF DRILL BITS

General purpose drill bits are the most common bits for wood and plastic.



Plastic bits have a pointy tip, and are for plastic only.

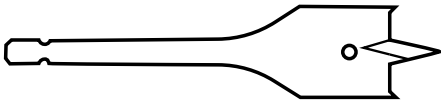


Brad point bits make more precise holes in wood than general purpose bits.

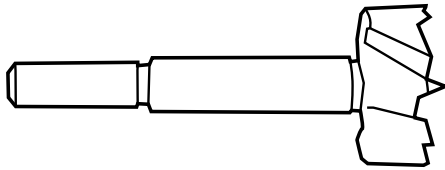


For large diameter holes:

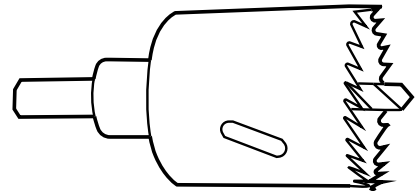
Spade (paddle) bit



Forstner bit



Hole saw

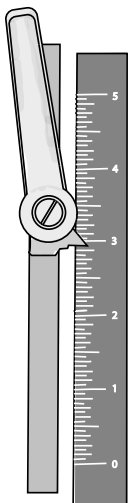
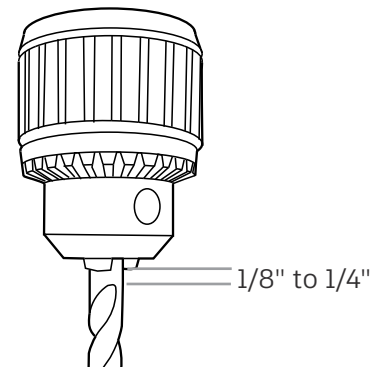


INSERTING A BIT

The chuck has three jaws that grip the drill bit.

Insert the bit with 1/8" to 1/4" of shank exposed out of the chuck.

- + Turn the chuck by hand, until it's snug.
- + Tighten the chuck further, with the chuck key.
 - ▶ Immediately remove the chuck key.
- + Rotate the chuck by hand to ensure the bit is centered, and the gears are fully meshed.



SETTING THE DEPTH STOP

The *depth stop* limits vertical movement. It allows you to drill multiple holes at the same depth, and to avoid drilling into the table.

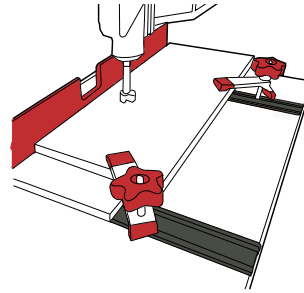
Tightening the depth stop lever will allow the quill to move down that far, *from the current position*.

- + To drill a 1" deep hole in the work, set the stop at 1" while the tip of the drill bit is on top of the workpiece.
- + To prevent drilling into the table, set the stop at 0" with the drill bit tip *just above* the table.

AREA AND MACHINE PREPARATION

1. Clean and clear the table.
2. Clamp your material to the table.
 - ▶ Always put a piece of sacrificial wood under your workpiece to avoid drilling into the table.
3. Insert the drill bit.
 - ▶ Remove the chuck key immediately.
4. Adjust the table height.
5. Adjust the RPM.

ALWAYS CLAMP YOUR WORKPIECE.



DRILLING THE HOLE

1. Start the drill.
2. Slowly pull the quill handle until the bit contacts the material.
3. Apply more pressure as needed.
4. Holes in deep material may become clogged with sawdust.
 - ▶ Pull the bit out of hole periodically to help clear out chips.
5. Turn off the drill press.

DO NOT CLEAN OFF THE TABLE WITH YOUR HAND WHILE THE BIT IS ROTATING.

CLEANUP

1. Remove and return the bit.
2. Remove and return the clamps.
3. Brush off the table and clean up the area.
4. Put scraps in the trash and reusable pieces in the storage bin in the woodshop

PUT BROKEN OR DULL BITS IN THE LABELED BIN BEHIND THE DRILL PRESS.