



Dead Blow Eliminator

Part# PWH-DBE-1000-CP

Dead Blow Eliminator (DBE) - Safety and Operation Instructions

To avoid serious injury and ensure best results for your application, please read carefully *all* operation and safety instructions for your DBE, as well as all other safety instructions that are applicable, especially those for your machine tool.

Proper Clothing: The moving spindle of a machine can snag loose fitting clothing, jewelry, or long hair. Never wear jewelry, long sleeves, neckties, gloves or anything else that could become caught when operating a machine tool. Long hair must be restrained or netted to prevent it from becoming entangled in moving spindle. Steel-toed boots should also be worn in any machine environment.

Proper Eye Protection: **Always** wear safety glasses with side shields to protect your eyes from flying particles.

Proper Work Piece Fixturing: **Never** hold the work piece or the vise it is held in by hand. The work piece must be clamped firmly to the table of the machine so that it cannot move, rotate, or lift.

Do not attempt to compress by hand: It requires considerable force to compress the PAWS DBE. Do not attempt to compress by hand. You could be injured.

Always be aware of the Potential Hazards of a Machining Operation:

- **WARNING: NEVER SPIN OR ROTATE THE TOOL. ZERO (0) RPM's.**
- Always be alert to the dangers of the machines with which you work.
- Always keep hands, body parts, clothing, jewelry, and hair out of the areas of operation, when the machine is moving.
- Areas of operation include the immediate point of impact and all transmission components including the DBE.
- Never bring your hand, other body parts or anything attached to your body into any of these areas until the machine is stopped.
- Never disable machine tool interlock devices or operate CNC machine tool with doors left open.

Be aware of any other applicable safety instructions or requirements.

Dead Blow Eliminator Operations

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Note: The PAWS Dead Blow Eliminator (DBE) was designed for use in 30 and 40 taper CNC machines for the purpose of proper part seating in the CNC fixture to insure the work piece is as flat as possible after clamping. **Tooling Weight** including holder: BT30 is 5.00 lbs. CAT40 is 5.70 lbs.

Operation Steps:

1. Adjust the PAWS DBE force by turning the knurled housing as shown in the drawing at right. We recommend turning the setting to maximum positive and then backing down **two** full turns for most part seating applications.

2. Use a standard ER32 (3/4") collet and install the shaft of the DBE into the collet and secure with 100 ft/lbs of torque. Use a standard 30 or 40 taper tool holder. The shorter the better.

3. Establish "Z" length of DBE as per any standard tool installation.

WARNING: do not exceed your machines travel capability for tool clearance reasons. Crash could occur. example - pallet changing machines and clearance required for indexing.

4. Install the DBE into the CNC wokcenter.

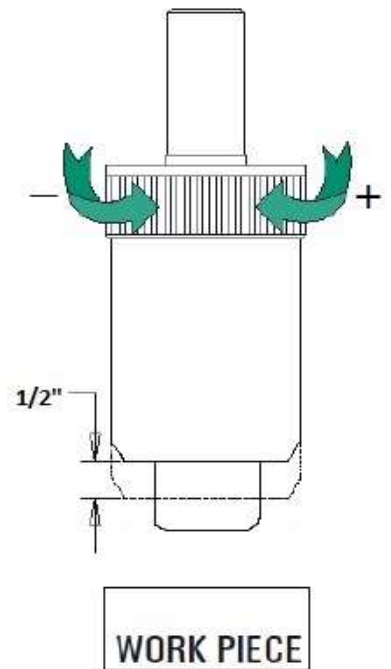
5. The PAWS DBE functions by feeding against the work piece surface.

- Start feed at safe distance from workpiece.
- Recommended compression stroke is .472 inches. ("Z" Move)
- Recommended Feed Rate is 150 inches per minute

Feeding at this recommended compression stroke will charge and launch the inertia system, which triggers the movement of the DBE's impact.

6. **DO NOT USE COOLANT during DBE Operations.** There are drain holes in the bottom of the housing to allow coolant to drain if it does get in. However, excess coolant in the housing can cause hydraulic lock.

7. On machining centers, be sure to lock the machine spindle in the tool change orientation position so that it will not rotate. Use a code like M19 for example to lock machine spindle in the tool change position.





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Programming on CNC Machines (example)

Simply rapid approach the surface of the work piece to a safe distance above the part.

Feed the PAWS DBE against the surface by the compression distance of .472 inches (recommended)

Using a feed rate of 150 inch/min. (recommended)

Then, rapid back to a safe clearance distance away from the part.

Example Code: Work piece surface is Z0.0

| | |
|----------------|----------------------------------|
| M6T1 | Load Tool (Dead Blow Eliminator) |
| M19 | Orient, lock spindle |
| G90 | Absolute movement |
| G0 X...Y... | Rapid to X Y location |
| G0 Z.100 | Rapid to .100" above |
| G1 Z-.472 F150 | Compress .472 inches |
| G0 Z1.0 | Rapid away 1 inch |

Repair Service is available at:

PAWS WORKHOLDING
11533 Liberty Street
Clio MI 48420

Support Phone (866) 686-7297

For repair service, ship the Dead Blow Eliminator back to PAWS Workholding for evaluation. A sales representative will call you back upon receipt of the tooling for an estimate once we have evaluated the tool.

Please call the support phone above if you need help or assistance.