



## CNC Bore & Dowel Inserter

### ELEV8 WOOD DOWEL

Setting the new standard in CNC Bore and Dowel inserting machines.

Introducing our CNC 8mm Wood and/or Plastic Dowel machine.

*The pull strength of a screw,  
The shear strength of a dowel,  
The holding power of glue,  
All in ONE machine!*

*“We don’t sell multiple machines to do a single operation, we sell one machine to do multiple operations”*



**National Sales Manager: Dale A. Bucy**

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Mailing Address: PO Box 539 · Ellenton, FL 34222-0539

Showroom: 3114 37th St E · Palmetto, FL 34221

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**After the sale, it’s the service that counts!!**

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## ELEV8 WOOD DOWEL



The **Elev8 Wood Dowel** is the only machine in the industry with both *HORIZONTAL* and *VERTICAL ROUTING CAPABILITIES* on a bore and dowel machine. While other manufactures only offer a 8mm brad point boring bit to do the machining of a bored hole - **OUR MACHINE** - uses 3 electro-spindles coupled with a **TRUE 3-axis CNC control**. Our machine will not only bore a simple hole but allows for all types of special machining to be performed on the panel.

It is this *special* machining that allows for:

Rafix, Minifix, and Maxifix components machined in both the **EDGE** and the **BOTTOM** of the panel.

Confirnat machining, Dog Bone routes on both the edge and bottom of the panel.

Domino slots for special applications.

Special drawer features, such as, machining rear panel notch for undermount drawer slides.

Soss hinges machined in cabinet panels or large door sides and jams.

**TRUE PARAMETRIC PROGRAMMING** allows for machined Louvered Doors and Shaker Door stiles and rails.

Dados and blind-dados can be programmed to automatically change size and length as the panel sizes change.



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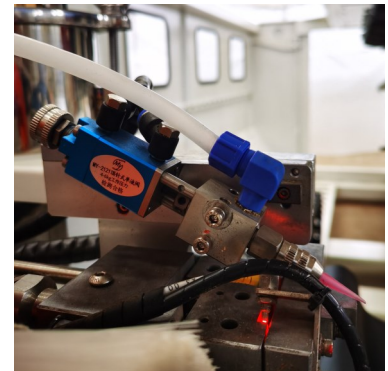
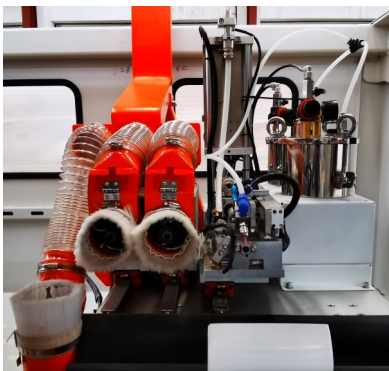
## ELEV8 WOOD DOWEL

The **Elev8 Wood Dowel CNC Bore and Dowel Inserter** is ideal for either the high production panel processing shop or the custom production shop.

The versatile **Elev8** allows for horizontal boring and dowel insertion in panel processing

### Bore, Glue, Dowel Insertion :

- Routers and Injectors are CNC controlled and mounted on heavy duty linear bearings and rails.
- The variable speed electro spindle is mounted on an independent linear guide, positioned forward by a pneumatic cylinder, then CNC controlled for accuracy of both bore and/or dado depth.
- The dowel injector unit is pneumatically shuttled allowing one dowel being injected into the panel.
- A photo eye is used to detect and ensure a dowel is loaded so the unit will not misfire.
- Glue or water can be used.
- Dosage of glue or water is controlled via PLC for repeated accuracy.



### 3-Variable Speed Electro Spindles:

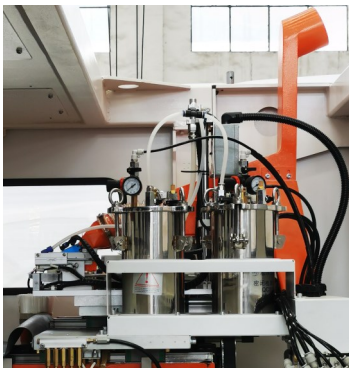
- 4,000 to 12,000 RPM.
- Lower RMP used for boring/ higher RPM used for dado.
- Capable of machining all types of materials such as wood, plastic, phenolic, etc...
- Fully Programmable dado. location, length, width and depth.

### Injector Unit:

- Pneumatic dowel shuttle.
- Fiber optic detection of dowel.
- Steel pneumatic driven injector rod.
- OVER-SIZED linear guides for long life of injecting of dowels.

### Glue Nozzle Unit:

- Pneumatic cycle.
- Manual set fixed amount of glue adjustment.
- Time controlled through the program.
- Linear guide mount for moving nozzle forward to Adjust, Clean and Flush.
- Cleaning station catch tank attached on the machine for quick flushing of nozzle.



### Stainless Steel Tanks

- Tanks are mounted and ride along with the machine head. This eliminated the long lines run through the machine and is umbilical. Allows for very precise glue control and very simple cleaning and maintenance for the life of the machine.
- Glue / water dosage controlled by PLC.
- Glue capacity:
- Water capacity:
- Easy clean-up with fresh water flush.

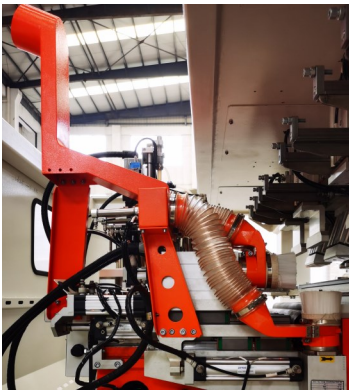
# CNC Bore & Dowel Inserter

## ELEV8 WOOD DOWEL



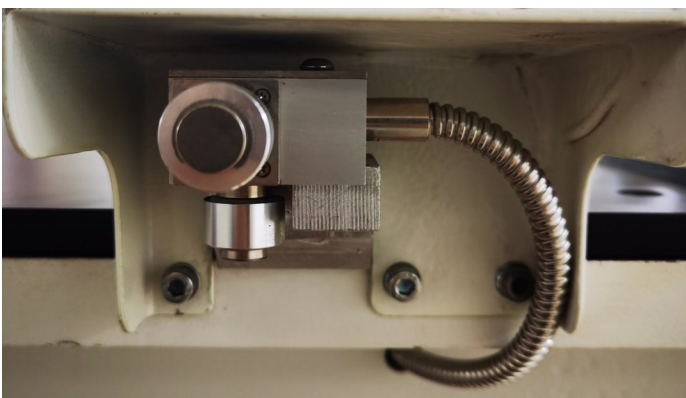
### Vibrator Bowl and Automatic Magazine Wood Dowel Feeder

- Separate PLC control for vibrator feed speed.
- Able to change and run different length dowels.
- Can run both wood dowels and pre-glued dowels.
- Ability to run plastic dowels, if desired.
- Magazine fed dowels, no more tube that feeds the dowels and related jamming problems.



### Dust Collection Unit

- 100mm main inlet.
- 3 independently, automatically selectable dust ports for routers.
- Dust ports are only open when the router is in use; no more wasted suction from the dust collector when machine is not in use.
- Independent access doors on each routers dust collection manifold allowing for quick tool change without having to remove the dust guard.



### Tool Touch-Off Device

- Tool touch-off device measures the length of the tools on all three spindles.
- 3 independently measured tools.

Benefits are:

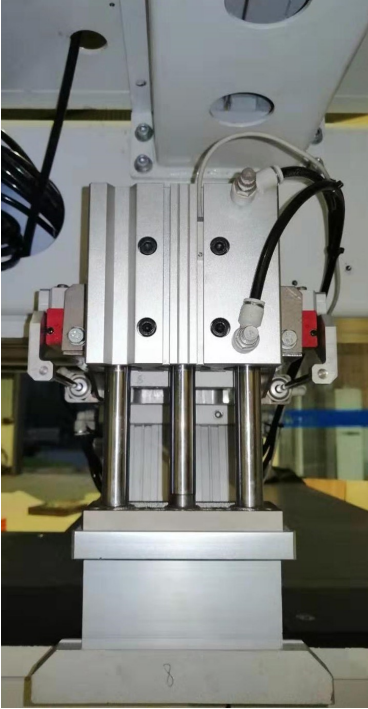
- Faster
- Accuracy
- No special operator training
- Safer for both machine and operator





# CNC Bore & Dowel Inserter

## ELEV8 WOOD DOWEL



The **ELEV8** is LEADING the industry with the **ONLY** programmable parts back-stop fence allowing for each station to work independent in an in-or-out position. This feature allows the panel to be placed 120mm passed the edge of the table allowing the vertical router 100mm of programmable Y-axis routing. All positions have position sensor monitoring for machine safety.

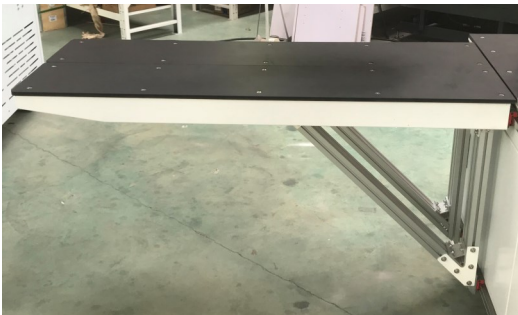
The **ELEV8** has 4 working zones and each working zone has 2 sets of hold-down clamps with a maximum part thickness capacity of 50mm. Each set of clamps has 2 sets of cylinders to hold the part in position, 1 clamp comes straight

down and 1 clamp comes down at a 30 degree angle, achieving the most secure clamping system in the industry.

The hold-down clamps are manually adjustable along 2-linear guideways in the X-axis and the pneumatically programmed back-stop travels on 2-prismatic guideways in the Y-axis.



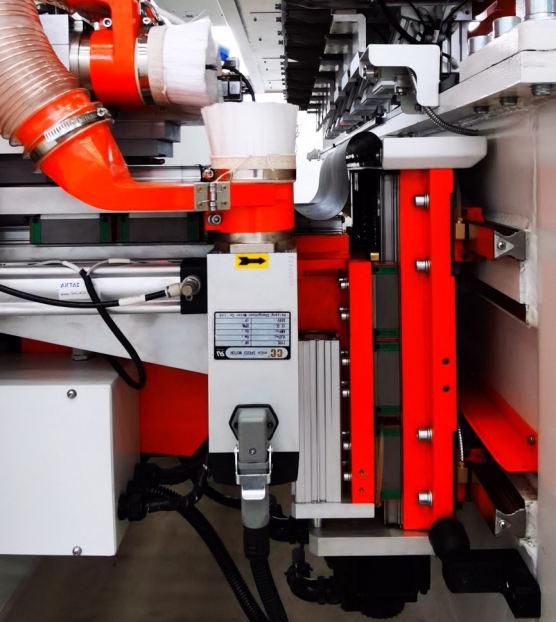
The 2 independently selectable horizontal routers offer a wide range of edge processing which includes: edge routing, edge drilling and blind dados. These two horizontal routers coupled with our parametric programming capabilities opens this machine up to so many specialty routing features needed in today's constantly changing production environment. One example of this would be placement of recessed, flush mount, hardware pulls. With two horizontal routers one can be dedicated to 8mm construction while the second router can have a smaller router bit for special machining applications under 8mm.



4 **phenolic tables**, 300mm x 1500mm, (12 inch x 60 inch) are mounted on linear guides and can be moved to accommodate large panels or pushed to either side to open up the work space area of the machine. *Making this machine ideal for the closet industry too.*

# CNC Bore & Dowel Inserter

## ELEV8 WOOD DOWEL

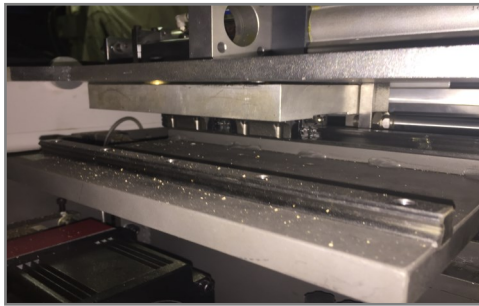
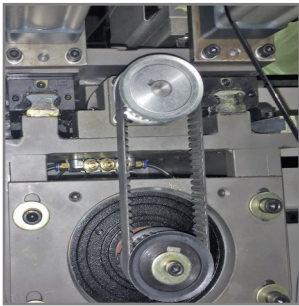


**Switching over to a wood dowel system has NEVER been easier or at a more affordable price.**

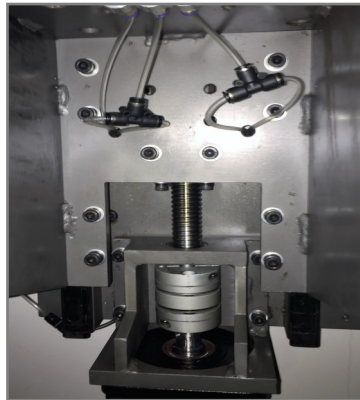
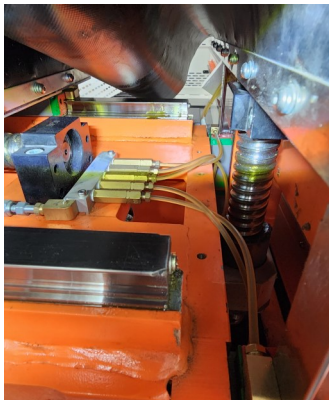
The **ELEV8** is the **only machine** in the industry with **VERTICAL ROUTING capabilities** on the bottom surface of the panel which guarantees the accuracy of 0.05mm repeatability of routed depth. Making the bottom the zero reference point, the variations in the materials thickness such as plywood have been eliminated.

### Benefits of vertical routing:

- NO floating head aggregates or live z-axis laser measuring device purchase needed for your flat table router.
- ELIMINATE the variations in the material/panel surface.
- A TRUE zero reference point on the bottom of the panel.
- ACCURACY of 0.05mm in routed depth.
- REPEATABLE accuracy.
- Easy and reliable tool changes with the built in tool touch-off device for measuring new tool lengths.



- CNC Servo Drive Motor on the X & Y-Axis.
- Heavy duty frame is mounted on 2 standard linear guides (ball bearings type).
- Linear guides provide high capacity, low friction guidance of payloads for machine applications. With 4 rows of recirculating balls engaged in a precision ground rail, these bearings provide load capacity in all directions.
- Y-Axis is positioned by a precision reciprocating ball screw.



- CNC Servo Drive Motor on the Z-Axis.
- Heavy duty frame is mounted on 2 Standard Linear Guides (ball bearings type).
- Linear guides provide high capacity, low friction guidance of payloads for machine applications. With 4 rows of recirculating balls engaged in a precision ground rail, these bearings provide load capacity in all directions
- Z-Axis is positioned by a precision reciprocating ball screw.



The PLC Controlled Centralized Lubrication System automatically applies oil to various lube points on the linear bearings. The system will inject oil continuously over time thereby ensuring that moving parts are always maintained and properly lubricated. This automated process involves a run and pause process thus increasing the equipment reliability and overall the plant productivity. This system eliminates the dependency on the operator to preform the weekly lubrication maintenance requirements.



# CNC Bore & Dowel Inserter

## ELEV8 WOOD DOWEL



### DELL PC, Dell Monitor Display with Wireless Keyboard

- Monitor can be adjusted to working conditions and moved completely out of the way during heavy production runs.
- Wireless keyboard can be moved with the operator to help in production and maintenance of the machine.
- Large Dell Monitor and PC with a 2 year warranty provided by Dell to match our 2 year machine warranty.



### Bar Code Reader

- Allows Operator the option to pick the zones to run the parts in.
- Panel length can be changed through the bar code due to the true parametrics features of our program.
- Wireless.
- Continuous Bar coding of parts without the operator having to interface with the PC.



### Electrical Control Cabinet

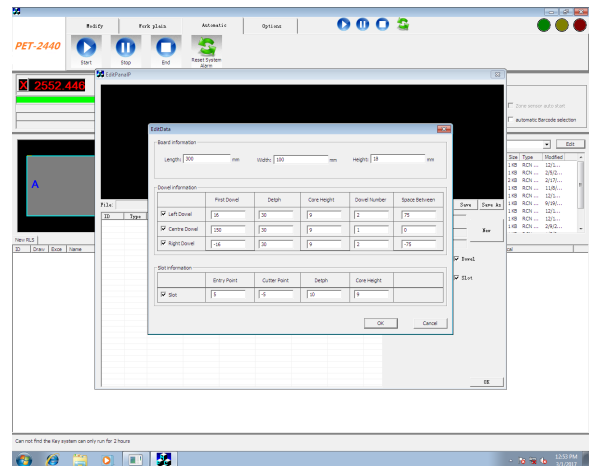
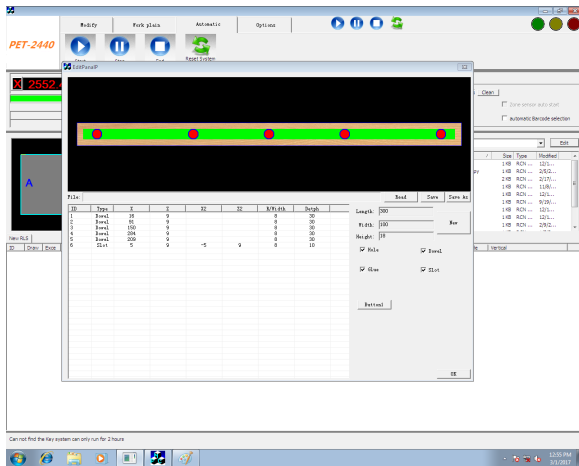
- Simple and Organized electrical components.
- NO PROPRIETARY components used. All components are easily available in the US.
- Delta VFD's
- Delta servos and Servo motors.
- Delta encoder and servo cables.
- LED display shown on monitor and inside the control cabinet.

# CNC Bore & Dowel Inserter

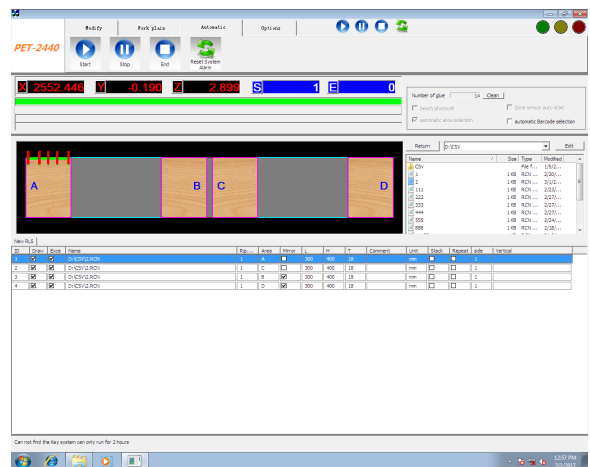
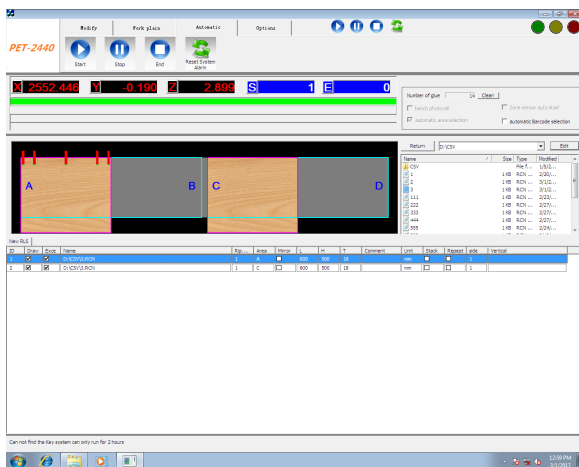
## ELEV8 WOOD DOWEL

Intuitive software programming designed to eliminate programming errors and wasting costly materials by allowing the programmer to actually see the program run prior to actually executing the program with a cut simulator and graphics screen.

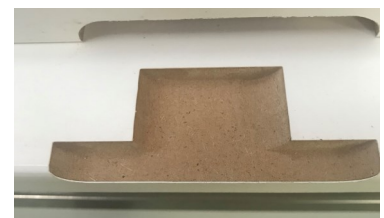
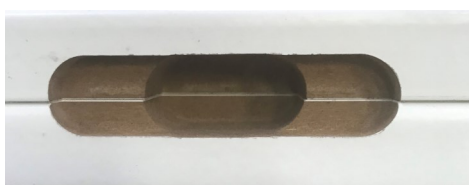
- User friendly programming screens
  - Simulator and graphics
- Cost conscious software learning curve



- Operator can easily choose which saved program to run and in which zones.
  - Automatic mirror image between the zones.
- 2 programs can be simultaneously run at the same time; select one program to run in zones A & B and select another program to run in zones C & D.



An added value to the ELEV8 is the software capability. Some of these features include: construction of Shaker stile doors, hardware placement for knobs and handles, hinge cup routing and Soss hinge routing, pictured below.





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### LOUVERED WOOD DOORS:

Complete machining of louvered door stiles and rails.

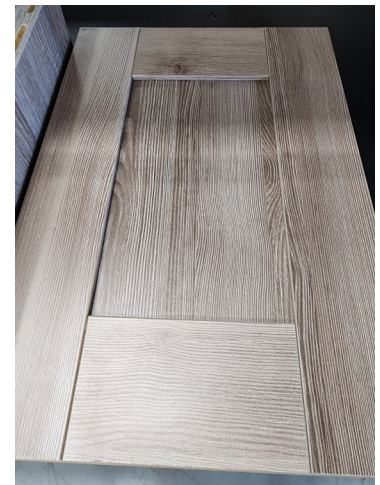
Total control of louver routes: length, angle, depth, spacing and quantity.

Sample shown with wood dowel and wood domino construction; slot of domino machined with horizontal router, manually inserted.



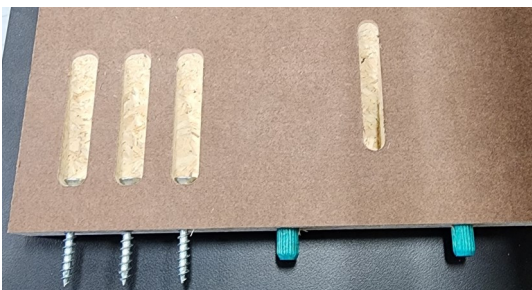
### FIVE PIECE SHAKER DOORS:

With parametric programming, once the program is written all the operator needs to change is the length of the stile and rail.



### POCKET SCREWS:

Total control of start and stop points to accommodate any length screw, depth of slot, width and repeats.



Dog Bone routes can also be programmed.



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## ELEV8 WOOD DOWEL

|                                       |  |
|---------------------------------------|--|
| MAXIMUM LENGTH OF PART (USING 1 ZONE) | 2440 mm / 96"  |
| MAXIMUM THICKNESS OF PART             | 50 mm / 2"   |
| 4 INDEPENDENT ZONES                   | 600 mm / 23.6"   |
| CENTER STOP FOR ZONES 2 & 3           | Raised and lowered by CNC  |
| 3 ELECTRO SPINDLES                    | 1.5 kW / 2 HP  |
| VARIABLE SPEED OF ELECTRO SPINDLE     | 4,000 - 12,000 RPM   |
| SPEEDS FOR X, Y & Z                   | X = 40 m/min / 131 fpm<br>Y = 10 m/min / 32 fpm<br>Z = 10 m/min / 32 fpm |
| PROGRAMMABLE LIMITS FOR X, Y & Z      | X = 2440 mm / 96"<br>Y = 116 mm / 4.56"<br>Z = 50 mm / 2"                |
| 1 INDEPENDENT VIBRATOR FEEDERS        | 8mm WOOD or PLASTIC DOWEL  |
| 1 HORIZONTAL EDGE INJECTOR            | 8mm WOOD or PLASTIC DOWEL  |
| CYCLE SPEED                           | 45 cycles per minute (drills or dowel inserts)                           |
| FIBER OPTIC SENSORS                   | For verification of wood dowel present to prevent misfires               |
| 4 PHOTO SAFETY EYES                   | 1 in each zone for part placement  |
| OFFLINE PROGRAMMING                   | Software can be install on another computer for offline programming      |
| VOLTAGE                               | 10 kW / 220 V / 1 Ph   |
| AMPS                                  | 40   |
| DIMENSIONS (APPROX.) L X W X H        | 3990 x 2880 x 2100 mm / 157" x 113" x 82"                                |
| WEIGHT (APPROX.)                      | 3000 kg / 6600 lb  |



**BACKED BY OUR INDUSTRY LEADING**

**\* 2 YEAR \***

**PEACE-OF-MIND WARRANTY**

**PROEDGE**  
TECHNOLOGY