

D-TANGLER 2000

Operations Manual Centrifugal Spring Detangling System



Designed and manufactured in the USA

DISPENSE WORKS INC

This system designed and manufactured by:



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NOTICE: This product is not to be used for or as part of a system that may cause injury or damage in case of failure. This brochure and any supplementary literature provides options for users with technical expertise. Each application must be analyzed by the end user, who will ultimately be responsible for the selection of this product. Dispense Works Inc., will not be responsible for any misapplications of this product.

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SECTION 1.0
SET UP

Select a steady work bench or table top to support the **D-TANGLER 2000**. Because of the high speeds and accelerations during operation a solid top works best. The work area should have approximately 14 inches wide by a minimum of 12 inches deep. Plan on using more space to include a tray or box to catch the material dispensing from the output tube.

Carefully remove the unit from the crate, place it on the bench and inspect the unit in general to verify that no damage has taken place during shipment.

When the unit is in position at your work area, begin the following procedures:

1. Connect the power cord to a 110 VAC electrical outlet.
2. Be sure the variable speed control setting is at a low speed (40 or less).
3. Position a tray or box directly underneath the output tube to capture processed material.

Your set up should now be complete.
Please store this manual in a safe location for future reference.

SECTION 2.0
GENERAL DESCRIPTION

D-TANGLER 2000 **Centrifugal Spring Detangler**

The **D-TANGLER 2000** is used to untangle springs and other materials that have a tendency to tangle and nest; making it a tedious task to separate by hand.

Tangled springs are manually dropped into the input tube. They fall into a steel chamber where an impeller located at the bottom, dislodges most of the tangled springs and gently dispenses them through the strategically located output tube.

The impeller blades are carefully designed on CAD systems to provide the best performance for gentle and efficient detangling.

Two handles are included for ease of transport within work areas.

The input tube can be rotated 90 degrees to suit individual preferences.

The input and output tubes are removable to provide the ability to modify the unit for total automation production.

The **D-TANGLER 2000** is built into an electrical enclosure to protect the motor, controls and wiring; while providing an attractive package that will compliment any work area.

The full-size rear door and removable top provide easy access to make cleaning and service a snap.

Care should be taken not to insert material over 3 inches in length, or wider than 2 inches.

It is not recommended to overfill the unit with material as this may cause the unit to jam and stall.

The unit should be in the ON position prior to loading any material.

As with any automated machine, be sure to proceed with safety when operating near the system. Eye safety glasses are recommended.

SECTION 3.0
SEQUENCE OF OPERATION

Make sure the unit is plugged in. Turn unit to ON position. Be sure to have a box or tray in place to capture the untangled material.

An operator will be required to manually load the tangled material into the input tube.

The operator can consecutively and continuously load the tangled material because the untangled material is being expelled almost simultaneously as it is being loaded.

The untangled material being expelled will have to be captured in a box or a tray, to be located directly under the output tube. The untangled material is now ready to be transported to another location or can be used directly from the tray.

The speed setting. It is recommended to initially adjust the speed to reflect a low setting. Once you start to process your materials the setting can again be adjusted to obtain maximum untangle rates along with high production output.

The capture tray. This may be any box or tray that will catch the expelled material. For larger, heavier material it is not recommended to use a rubber tray as this may cause the material to bounce and become a potential hazard.

You may wish to have the untangled material expel directly onto a conveyor to be transported to the next work cell.

As with any automated machine, be sure to proceed with safety when operating near the system. Eye safety glasses are recommended.

The **D-TANGLER 2000** is an industrial strength untangling unit built to withstand the demands of high production in an industrial setting.

SECTION 4.0
CONTROLS

The **D-TANGLER 2000** has been engineered to reflect simplicity in configuration and user friendliness. The only setting that requires adjusting is the *variable speed control*.

Adjusting this setting will allow the user to obtain maximum untangle rates by adjusting this control either lower or higher, whichever will work best on your materials.

The speed control (depending on the tangled material) can also be adjusted to it's highest setting to allow for maximum output of untangled materials for high production requirements.

A 5amp fuse is located on the side of the unit. Should any foreign object get into the unit and cause a jam, it will blow the fuse and need to be replaced. This ensures that only the fuse will blow instead of disabling the entire motor system.

SECTION 5.0
MAINTENANCE

CLEANING

Separation Chamber	This chamber should be inspected for particles and debris from processed materials and be wiped away. This should be the only cleaning necessary to keep the unit in top running condition.
Impeller Blades	After 12 months of use the blades should be inspected for wear. The blades are CAD designed from hardened plastic to endure long hours and years of use.

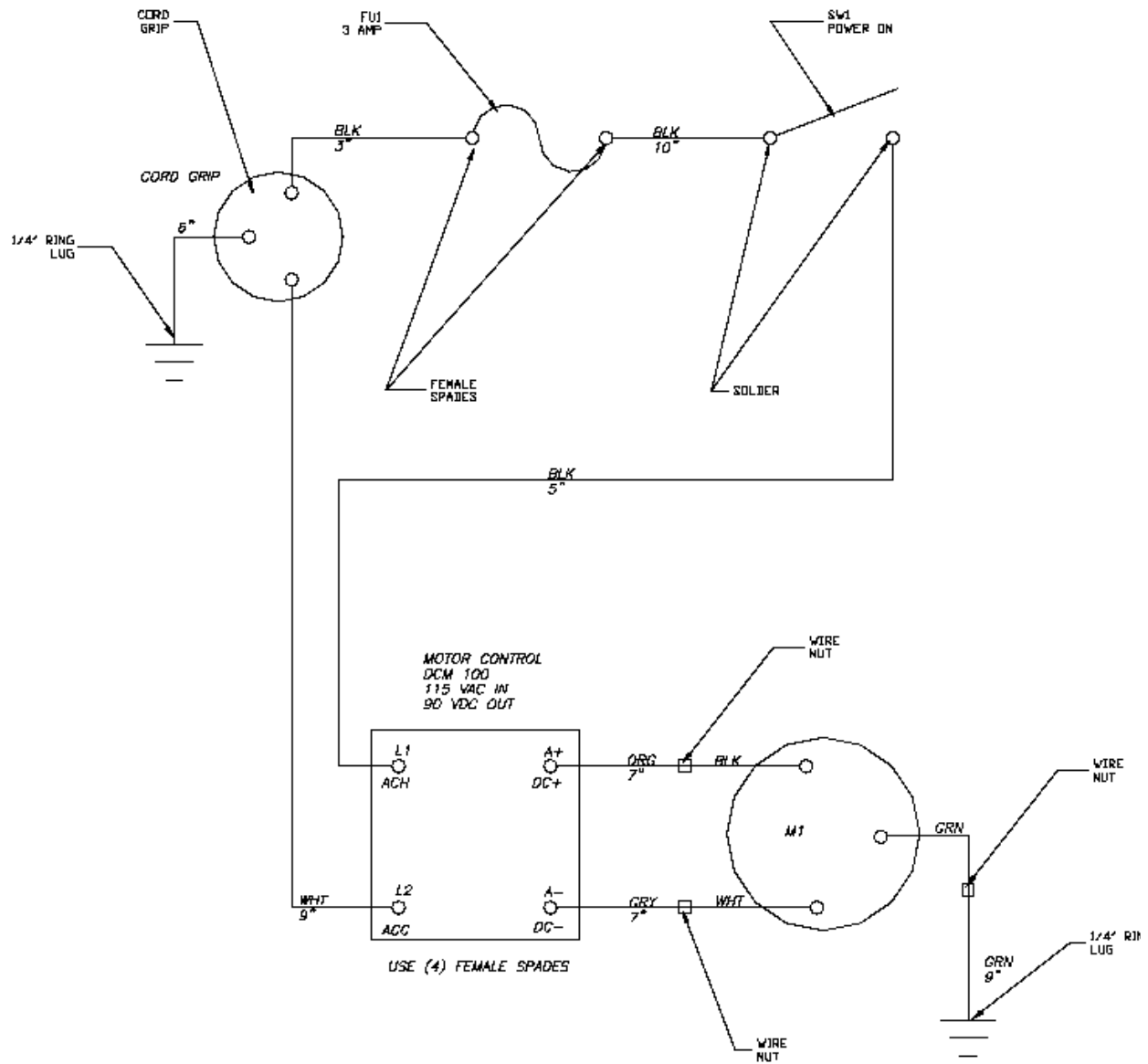
ELECTRICAL

5 Amp Fuse	<p>This fuse should not need to be replaced until it breaks. Possible reasons are foreign objects in separation chamber or power surge.</p> <p>Another reason the fuse may blow is due to overfilling the unit with material. Be sure to load material without stuffing it full. Handfuls of material will process consistently when added in intervals.</p>
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SECTION 6.0
ELECTRICAL SCHEMATIC

D-TANGLER 2000

Centrifugal Spring Detangler



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SECTION 7.0
TROUBLE SHOOTING

1. No Power to *D-TANGLER 2000*

Probable Cause(s)

- A. Poor connection at wall outlet or cord.
- B. Blown fuse.

Solution(s)

- A. Check power cord for proper connection.
- B. Inspect, and replace fuse if necessary.

2. *Material Processed Still Untangled*

Probable Cause(s)

- A. Too much material loaded at once.
- B. Speed setting.

Solution(s)

- A. Load smaller batches of material in input tube.
- B. Adjust speed setting higher or lower to improve untangle rate.

3. *Unit Suddenly Stopped*

Probable Cause(s)

- A. Too much material loaded at once.
- B. Blown Fuse.

Solution(s)

- A. Remove top of input tube to expose the chamber. Remove material. Inspect to make sure chamber is completely empty. The fuse will need to be replaced in order to begin operation again.
- B. Replace fuse.

Technical Support

Technicians are available to answer any questions you may have. Please call 815-363-3524 and dial "0" to have a technician paged for immediate response. Our hours are 8:00 AM - 4:00 PM, Monday through Friday, Central Standard Time.