



Adams-Maxwell
Winding Systems

Operating Manual

1260 Automatic Traverse





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Section 1 - Introduction

Congratulations on your purchase of the Adams-Maxwell 1260 Automatic Traverse. The 1260 Automatic Traverse interfaces with the 1400 Series Bobbin Winder to automatically lay wire onto the work piece by traversing back and forth relative to the wire diameter and speed of the bobbin winder. The 1260 Automatic Traverse combines precision stepper motor control and microprocessing technology to provide precision winding.

Specifications

Traverse Speed = 1/2 inch per second.

Normal Pitch Range Control = .0001 to .0999 inch per revolution.

Fine Pitch Range Control = .00001 to .00999 inch per revolution.

1260 Traverse Length = 24 inches settable in .001 increments.

Motor Type = Stepper Motor / Stepper Driver.

Voltage Requirements = 117 Volts, 48-63 Hz.

Power Requirements = 100VA.

Physical Weight = 90 lbs.

Wire Range = #7 AWG to #56 AWG

EPROM Version = 445 TRVS HEX

Limited Warranty

Adams-Maxwell warrants this equipment for ONE full year from the date of Invoice against defects in workmanship and components except: Breakage of parts and/or Damage caused by misuse or mishandling. Misuse includes operation of the equipment outside of its intended range.

Adams-Maxwell reserves the right to make repairs or replacements either at its plant or at the customer's location at Adams-Maxwell option. Equipment is to be returned to Adams-Maxwell at owner's expense and is subject to inspection for verification of warranty repairs. If repairs are covered by this warranty, the equipment will be repaired at Adams-Maxwell's expense. All warranty repairs are to be made by Adams-Maxwell. This warranty is in lieu of any and all other warranties, including but not limited to warranties of marketability and fitness for a particular purpose. In no event shall Adams-Maxwell be liable for indirect or consequential damages or special expense of any kind as a result of breach of express warranty or as a result of the use or misuse of the equipment.

The MOSS-MAGNUSON warranty act of 1975 provides certain specific rights to the purchaser. This warranty is termed a LIMITED WARRANTY as defined in that act but, as such, in no way compromises the high quality of performance, workmanship and customer service of Adams-Maxwell.

Machine Set-up

The 1260 Traverse is designed to be mounted on the 1417 Baseplate along with the 1400 Bobbin Winder and 1430 Tailstock. When the 1260 is purchased as part of a system, it comes mounted to the 1417 Baseplate. If not, follow the mounting instructions provided with the 1417 Baseplate. All mounting hardware is included with the Baseplate.

- Step 1: Connect the Option T Interface cable to the two J2 Sockets, one located on the back of the 1400 Bobbin Winder, the other located on the back of the Traverse.
- Step 2: Connect the power cord female plug to the corresponding male receptacle on the back of the Traverse and connect the power cord male plug to a power source.
- Step 3: Set up the Dereeler unit directly behind the Traverse (see Figure 1) below and feed the wire through the 1228 Wire Guide Assembly (see Figure 2 on page 6). (Set up and threading instructions are provided with the dereeler.)

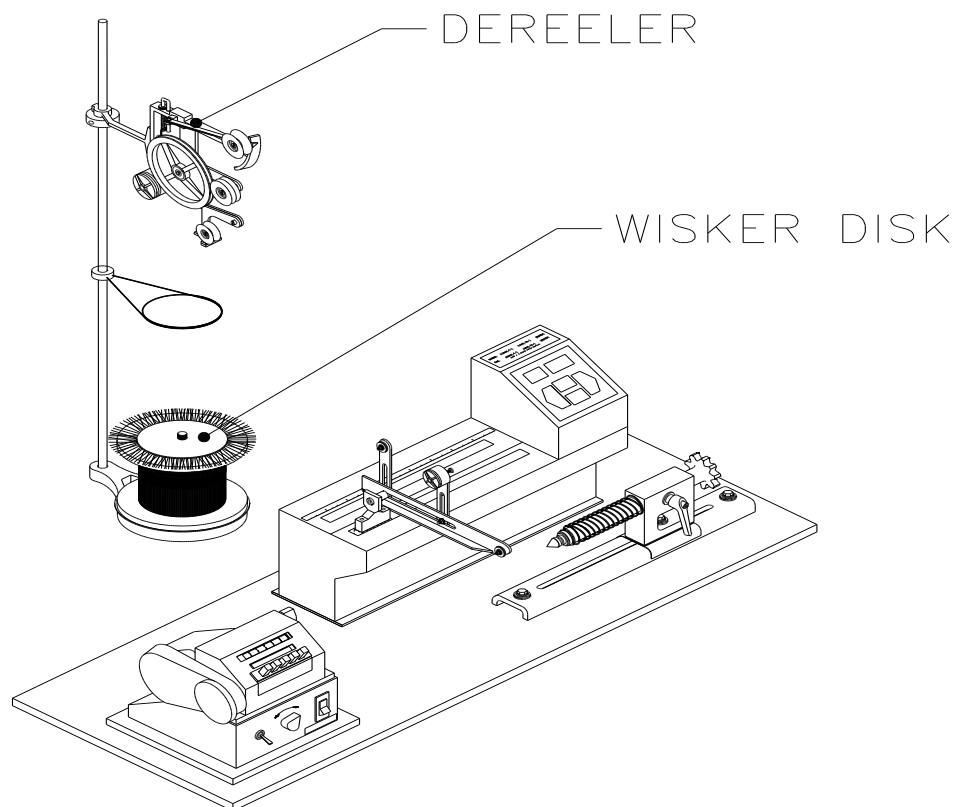


Figure 1

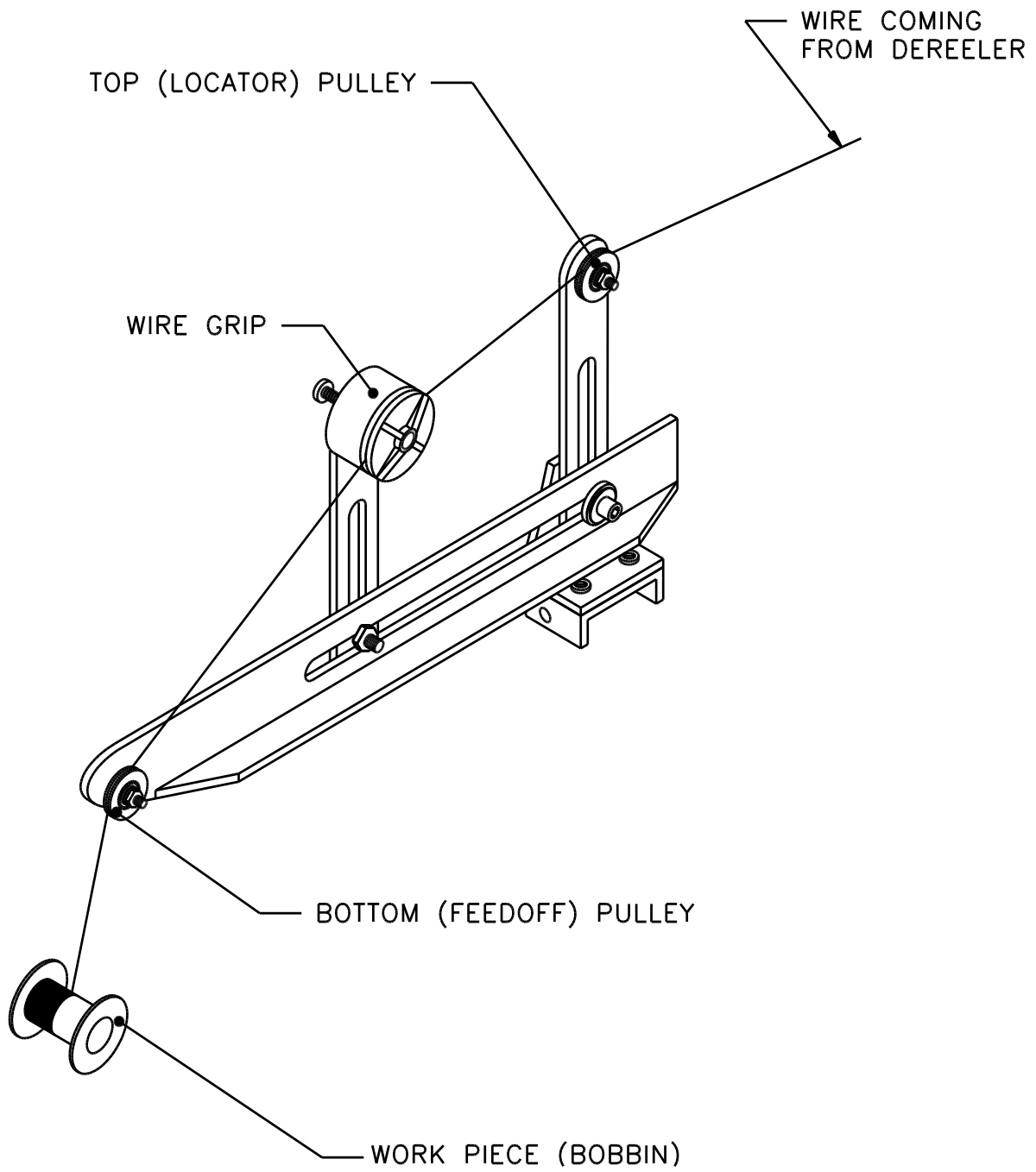


Figure 2

Section 2 - Basic Operation Controls

The 1260 Automatic Traverse is controlled through the Control Panel. This section provides an overview of these controls and indicator lights of the Control Panel. The Control Panel is shown below.

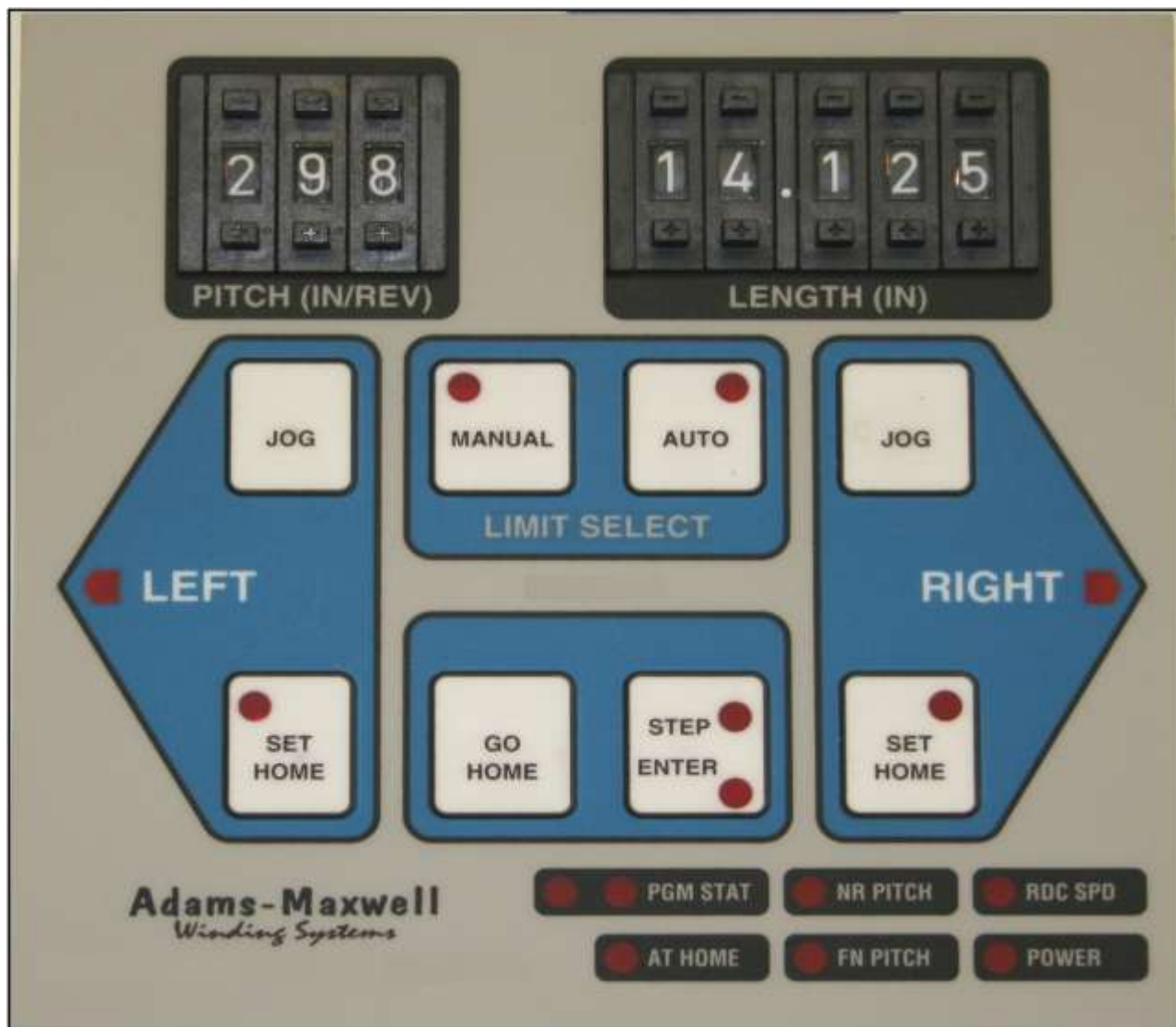


Figure 3

Basic Operation Controls of the Control Panel

Length Switch

The Length Switch is a series of push button switches used to set the traverse travel distance before reversing direction. The length switches can be set in .001 inch increments from 0 to 23.999 inches for the 1260 Traverse. The length is increased by pressing the buttons above the numbers, and decreased by pressing the buttons below.

Pitch Switch

The Pitch Switch is a series of push button switches used to set the distance the traverse will travel per each revolution of the bobbin winder arbor. The pitch is indicated in inches per turn or revolution. For layer winding (side by side winding), the pitch should be set to the diameter of the wire (See chart on page 11) . The pitch is increased by pressing the buttons above the numbers, and decreased by pressing the buttons below.

Jog Left and Jog Right

The Jog Left and Jog Right keys are used to move the carriage to the left and right. The movement is slow for the first second and then becomes faster as the jog key is held down.

Set Home Left and Set Home Right

The Set Home keys are used to establish the starting position of travel for the winding operation. This is done by jogging the carriage to the desired start position and then pressing either Set Home Left or Set Home Right. Note that the Set Home Left key will cause the carriage to initially move to the right and the Set Home Right key will cause the carriage to initially move to the left.

Go Home

The Go Home key returns the carriage to the Home position.

Manual Program Mode

Press the Manual key to set the traverse programming mode to Manual.

Automatic Program Mode

Press the Automatic key to set the traverse programming mode to Automatic. In addition, pressing the **'AUTO'** key in conjunction with other keys will select Multiple Sequence, Variable Layer or Variable Pitch Program Mode.

Basic Indicator Lights of the Control Panel

At Home

Indicates that the carriage is at the Home position.

Power

Indicates that the traverse is powered on.

Right and Left

Indicates the direction of travel.

NR Pitch

Indicates that the traverse is in Normal Pitch mode.

FN Pitch

Indicates that the traverse is in Fine Pitch mode.

RDC SPD

Indicates Reduce Speed. The traverse will enter into an over speed condition if the RPM of the bobbin winder and pitch setting exceeds the maximum travel speed of the traverse. See the Over Speed Section for limitations.

Back Panel Controls

Power Switch

Turns traverse on and off. The power switch is illuminated when power is on.

S1 - Auto Home Switch

When the S1 switch in position A (Up) the traverse carriage will automatically return to the Home position when the Reset Button of the 1400 Bobbin Winder is pressed. Putting the switch in position B (Down) will disable this option.

Boot

The Boot button resets the microprocessor of the traverse. Under normal operation circumstances it will not be necessary to use this control

Section 3 - Selecting the Pitch Mode

The Adams-Maxwell has two pitch modes to provide greater precision when working with fine wire. These pitch modes are Normal and Fine. Normal Pitch Mode is the default mode and is used for wire sizes AWG #3 to #38. Fine Pitch Mode is used for wire sizes AWG #39 to #56. Fine Pitch Mode is selected by holding down the “Left Jog” key while the traverse is powered on.

Normal Pitch

Normal Pitch Mode is the default mode used for wire sizes AWG #3 to #42 and is adjustable in .0001 inch increments.

Example:

AWG #28 has a diameter of .0140 inch

Pitch Switches would be set to : 140

Fine Pitch

Fine Pitch Mode for wire sizes AWG #39 to #56 and is adjustable in .00001 inch increments. Fine Pitch Mode is selected by holding down the “Left Jog” key while the traverse is powered on

Example:

AWG #47 has a diameter of .00166 inch

Pitch Switches would be set to : 166

Indicator Lights

The indicator lights on the control panel indicates the current pitch mode of the traverse. NR indicates that the traverse is in Normal Pitch. FN indicates that the traverse is in Fine Pitch.

Pitch Table

The following pitch table provides the recommended pitch settings for both single and double build magnet wire. Since wire sizes vary, use this table as a starting point and then adjust the pitch setting as necessary to achieve the desired layering results.

Pitch Settings for Magnet Wire

WIRE SIZE (AWG)	BARE WIRE MAX Ø IN	SINGLE BUILD MAXIMUM Ø IN	DOUBLE BUILD MAXIMUM Ø IN
#1	.289		
#2	.252		
#3	.229		
#4	.204		.211
#5	.181		.188
#6	.162		.168
#7	.144		.150
#8	.128	.132	.134
#9	.114	.118	.120
#10	.101	.105	.107
#11	.0909	.0941	.0957
#12	.0808	.0840	.0855
#13	.0720	.0750	.0765
#14	.0641	.0670	.0684
#15	.0571	.0599	.0613
#16	.0508	.0534	.0548
#17	.0453	.0478	.0492
#18	.0403	.0426	.0440
#19	.0359	.0382	.0395
#20	.0320	.0341	.0353
#21	.0285	.0306	.0317
#22	.0253	.0273	.0284
#23	.0226	.0244	.0255
#24	.0201	.0218	.0229
#25	.0179	.0195	.0206
#26	.0159	.0174	.0185
#27	.0142	.0156	.0165
#28	.0126	.0139	.0148

Figure 4
See pg. 26 for Fine Wire

Section 4 -- Basic Traverse Winding

To program the Adams-Maxwell Traverse for basic bobbin winding follow these steps:

- Step 1: **Press the “Auto” Key. (Light goes on)**
- Step 2: **Enter the bobbin’s traverse length and magnet wire pitch into the Length and Pitch switches of the traverse.**
- Step 3: Place a bobbin on the arbor of the bobbin winder and jog the carriage to the desired **home position and press either the Left or Right “SET HOME” key. This instructs the traverse where to start and the initial direction of travel.**
Note that the Set Home Left key will cause the carriage to initially move to the right and the Set Home Right key will cause the carriage to initially move to the left.
- Step 4: Secure the wire and start the bobbin winder. The carriage will traverse back and forth the specified length until the bobbin winder stops at the pre-determine number of turns.
- Step 5: **Remove the bobbin and press the “GO HOME” key. The carriage will travel back to the home position for the start of a new winding. Place a new bobbin on the winder’s arbor and repeat Step Four.**

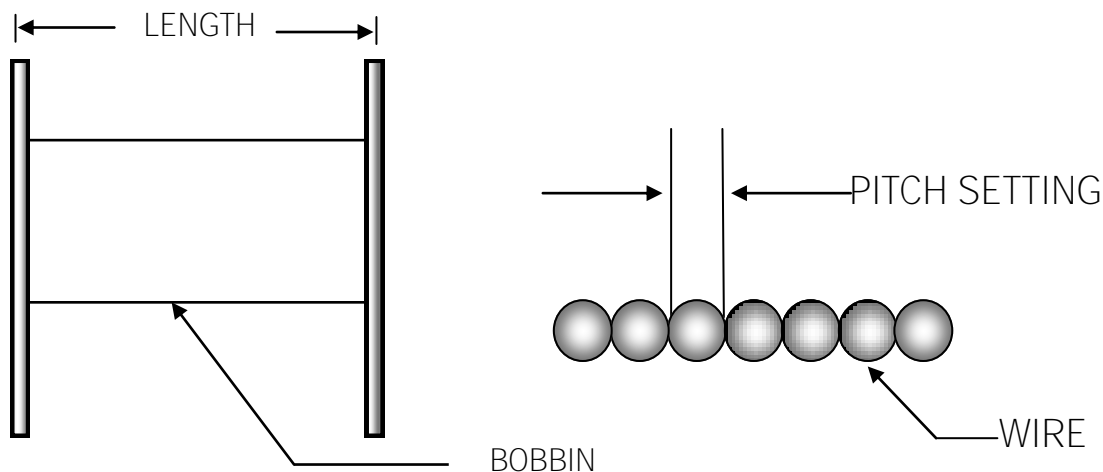


Figure 5

Helpful Hints

Positioning the Home Position

To set the left flange of the bobbin as the home position pull the wire from the bottom pulley of the wire guide assembly and lay it against the left flange. Jog the carriage until the wire is coming off straight (perpendicular) to the bobbin. Press the “Left Set Home” key. This will establish the carriage’s home position and initial start direction to the right.

To set the right flange as the home position following the same procedure but press the “Right Set Home” key. The initial start direction will be to the left.

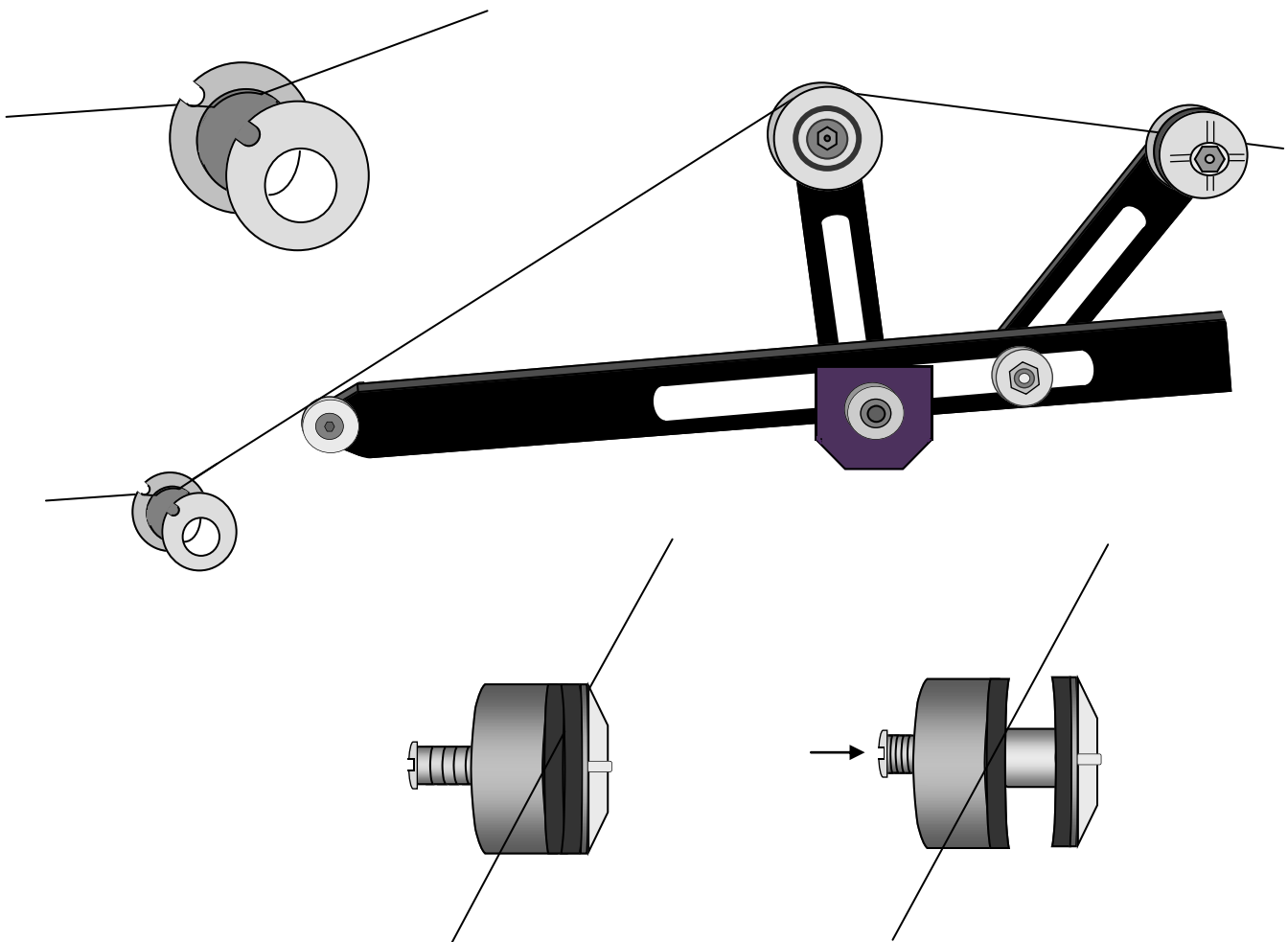


Figure 6

Section 5 - Mechanical Stops Winding

The two mechanical stops of the traverse can be used to establish the traverse margins during the winding operation. The Length Switch is inoperative.

- Step 1: **Press the “Manual” Key. (Light goes on)**
- Step 2: Enter the magnet wire pitch into the Pitch switches of the traverse.
- Step 3: Slide the right and left mechanical stops to the desired traverse reversal points or margins of the bobbin.
Note: The carriage will travel approximately .03 of an inch past each mechanical stop so compensate by positioning the stops .03 of an inch less than the desired margins.
- Step 4: Place a bobbin on the arbor of the bobbin winder and press either the Left or Right **“SET HOME” key followed by the “GO HOME” key. The carriage will automatically move the selected mechanical stop.**
- Step 5: Secure the wire and start the bobbin winder. The carriage will traverse back and forth between the mechanical stops until the bobbin winder stops at the pre-determine number of turns.
- Step 6: **Remove the bobbin and press the “GO HOME” key. The carriage will travel back to the home position for the start of a new winding. Place a new bobbin on the winder’s arbor and repeat Step Five.**



Figure 7

Section 6 - Built-in Programs

There are three custom programs available in the Adams-Maxwell Traverse for specific winding applications.

Multiple Sequence Winding allows 32 winding sequences to be defined and linked together. Each winding sequence consists of a home position, initial direction of travel, length of the travel and pitch setting.

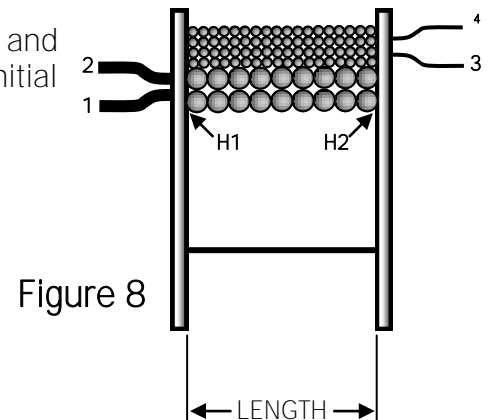


Figure 8

Variable Layer Winding allows 32 different layers each having its own length and pitch. In operation the traverse will travel the distance of the first layer and then automatically reverse starting the second layer and travel its programmed length. The traverse will continue this process for all programmed layers.

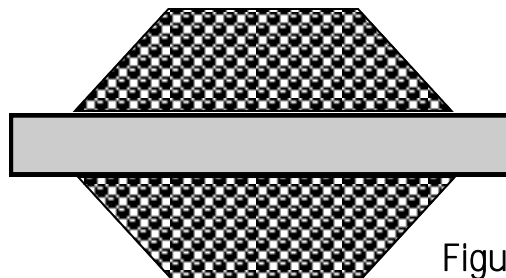


Figure 9

Variable Pitch Winding allows 32 different sequences each having its own length and pitch without the traverse reversing itself. The traverse moves in only one direction. In operation the traverse will travel the distance of the first length with its corresponding pitch and then change to the second defined pitch with its programmed length. It will continue this process for all programmed sequences.



Figure 10

Multiple Sequence Mode

Multiple Sequence Mode allows up to 32 winding sequences to be defined and linked together to create a winding program, providing great flexibility for different winding conditions and techniques. The program can be stored in the traverse memory and will remain there even if the power is turned off.

A winding sequence consists of a home position, initial direction of travel, length of the travel and pitch setting. Usually a traverse winding sequence will correspond to a bobbin winder sequence. During the winding process, moving from one traverse winding sequence to the next is accomplished by pressing the 'STEP/ENTER' key. The following is an example of an application using the Multiple Sequence Mode.

Primary Winding

230 Turns #28 AWG
Start wire #1
Finish wire as #2

Secondary Winding

450 Turns #32 AWG
Start wire #3
Finish wire as #4

Program Set Up

The programming details will be discussed later; but first let's look at how this example would execute. Load a bobbin onto the winder. Press 'GO HOME' to move the carriage to H1 (Home Position 1). Secure the #28 wire at the left flange of the bobbin. Start the winder. The traverse will travel back and forth the bobbin width (.875) until the bobbin winder reaches 230 turns and stops. Press the 'STEP/ENTER' key to advance the traverse to the next sequence.

	<u>Bobbin Winder</u>	<u>Traverse</u>
Sequence 1	230 Turns ABS PC	Home (set at left flange - H1) Initial Direction – to the right Pitch = 139 (Normal Pitch for #28) Length = 0.875
Sequence 2	450 Turns ABS PE	Home (set at right flange - H2) Initial Direction – to the left Pitch = 091 (Normal Pitch for #32) Length = 0.875

The carriage will automatically move to H2 (Home Position 2). Secure the #32 wire at the right flange of the bobbin. Start the winder for the second sequence and the traverse will travel back and forth with the appropriate pitch until the 450 turns are reached. Remove the bobbin and press the **'GO HOME'** key. The carriage will move back to the H1 position ready for the next bobbin.

This example is a fairly straight forward application; however, it illustrates how the Multiple Sequence Mode works. By being able to define separate lengths, pitches, home positions and directions a variety of bobbin configurations or winding techniques can be wound, including multisection bobbins and multi-level bobbins. When doing multiple windings of various size wires onto one bobbin, the Multiple Sequence Mode can be used with the Guide Rail Accessory and multiple Wire Guide Assemblies for easier access to the various wires.

Multiple Sequence Programming Steps:

Absolute Move: When programming multiple traverse sequences it is sometimes desirable to position a home position an exact distance from the previous home position instead of jogging the carriage. This is done using the Absolute Move.

Enter the delta distance from the previous home position in the "Length". While pressing the 'GO HOME' key, press either the left or right 'JOG' key. The carriage will then move the specified length and direction.

TO RUN:

At any time, to reset to the beginning Multiple Sequence Program, press **'GO HOME'**. To move from one winding sequence to the next press **'STEP/ENTER'**. To reverse through the winding sequences, while pressing the lit **'SET HOME'** key press the **'STEP/ENTER'** key.

TO PROGRAM:

- Step 1: Turn on the traverse by switching on the **POWER** switch at the rear of the machine. **All LED's on the control panel will light up for about a second and the traverse will beep three times.** The Manual status light should be illuminated. (For complete explanation refer to the "Powering Up" Section)
- Step 2: Enter the Multiple Sequence Program Mode by pressing the **'GO HOME'** key while pressing the **'AUTO'** Key. **Note: the Program status LED "○●" flashes while in the Multiple Sequence Programming Mode.**
- Step 3: Jog the carriage to the desired home position (See **Absolute Move**).
- Step 4: Enter the desired Length and Pitch Settings
- Step 5: Press either the left or right **'SET HOME'** key. The **'ENTER'** LED will be illuminated indicating that the next sequence is ready to be entered
- Step 6: Repeat Step 3 to Step 5 for up to 32 winding sequences

When the carriage is at a Home Position, adjustments can be made to the winding by using the hand-wheel on the winder. As the hand-wheel is moved (CW or CCW) the carriage will move away from the home position and the Step LED will darken.. Pressing the **'STEP/ENTER'** key will return the carriage back to that home position as long as the carriage has not moved more than 1/8 of the winding sequence length. The Step LED will re-illuminated. If the carriage has been moved more than 1/8 of the winding sequence length, the carriage will move to the next home position when the **'STEP/ENTER'** key is pressed. However, the carriage can be moved back to the previous home by holding down the lit **'SET HOME'** key and then pressing the **'STEP/ENTER'** key.

TO SAVE:

Step 7:

Save the winding sequences in memory by pressing the **'AUTO'** Key. The carriage will automatically return to Home Position 1 and the Program Status LED will display "o●". You are now out of the Programming Mode, and in the Winding Mode. The program will now remain in memory even if the traverse is turned off.

It is possible even after the multiple sequences have been saved to change the first Home Position (H1). To do this, press **'GO HOME'**, then use the jog keys to move the carriage to desired the new home position. The original Set Home LED will begin to flash. Press the **'SET HOME'** key. This will establish a new Home Position H1 with all other home positions maintaining the same relative distance from this new H1

TO POWER DOWN:

To use the same program next time you turn on the traverse, press **'GO HOME'** to return to Home Position 1 and then turn off the traverse.

Make sure that the traverse is back to Home Position 1 before turning off the traverse.

TO ERASE and EXIT:

To remove the program from memory, and exit the Multiple Sequence Mode, while pressing the **'AUTO'** key press right **'JOG'**, then press the **'MANUAL'** key.

Variable Layer Mode

Variable Layer Mode allows you to program up to 32 different layers each having its own length and pitch. In operation the traverse will travel the distance of the first layer and then automatically reverse starting the second layer and travel its programmed length. It will continue this process for all programmed layers.

The last layer of information will repeat if more turns are programmed on the winder.

TO PROGRAM:

- Step 1: Turn on the traverse by switching on the **POWER** switch at the rear of the machine. **All LED's on the control panel will light up for about a second and the traverse will beep three times.** The Manual status light should be illuminated. (For complete explanation refer to the "Powering Up" Section)
- Step 2: Enter Variable Layer Program Mode by pressing the **left 'JOG'** key while pressing the **'AUTO'** key. **Note that the program status LED "●○" flashes while in the Variable Layer Programming Mode.**
- Step 3: Jog the carriage to the desired Home Position,
- Step 4: Enter the desired Length and Pitch.
- Step 5: Press either the left or right **'SET HOME'** key to establish the home position for the first layer. The carriage will now move the length of the first layer to the start of the second layer. The opposite set home will come on.
- Step 6: Enter the desired length and pitch and press the light **'SET HOME'** key.
- Step 7: Repeat Step 6 for up to a total 32 layers

TO SAVE:

- Step 8: **Save the winding sequences in memory by pressing the 'AUTO' Key.** The carriage will automatically return to Home Position 1 and the Program Status LED will display "○●". **You are now out of the Programming Mode, and in the Winding Mode.** The program will now remain in memory even if the traverse is turned off.
-

TO RUN:

At any time, to reset to the beginning of the Variable Layer Program, press **'GO HOME'**. To move from one winding sequence to the next press **'STEP/ENTER'**. To reverse through the winding sequences, while pressing the lit **'SET HOME'** key press the **'STEP/ENTER'** key.

When the carriage is at a Home Position, adjustments can be made to the winding by using the hand-wheel on the winder. As the hand-wheel is moved (CW or CCW) the carriage will move away from the home position and the Step LED will darken. Pressing the **'STEP/ENTER'** key will return the carriage back to that home position as long as the carriage has not moved more than 1/8 of the winding sequence length. The Step LED will re-illuminated. If the carriage has been moved more than 1/8 of the winding sequence length, the carriage will move to the next home position when the **'STEP/ENTER'** key is pressed. However, the carriage can be moved back to the previous home by holding down the lit **'SET HOME'** key and then pressing the **'STEP/ENTER'** key.

It is possible even after the multiple sequences have been saved to change the first Home Position (H1). To do this, press **'GO HOME'**, then use the jog keys to move the carriage to desired the new home position. The original Set Home LED will begin to flash. Press the **'SET HOME'** key. This will establish a new Home Position H1 with all other home positions maintaining the same relative distance from this new H1.

TO POWER DOWN:

To use the same program next time you turn on the traverse, press **'GO HOME'** to return to Home Position 1 and then turn off the traverse.

Make sure that the traverse is back to Home Position 1 before turning off the traverse.

TO ERASE and EXIT:

To remove the program from memory and exit the Variable Layer Mode, while pressing the **'AUTO'** key press the right **'JOG'** key, then press the **'MANUAL'** key.

Variable Pitch Mode

Variable Pitch Mode allows you to program up to 32 different sequences each having its own length and pitch. The traverse does not reverse itself in Variable Pitch Mode but moves in only one direction. In operation the traverse will travel the distance of the first length with its corresponding pitch and then change to the second defined pitch with its programmed length. It will continue this process for all programmed sequences

The last sequence information will repeat if more turns are programmed in the winder.

TO PROGRAM:

Step 1: Turn on the traverse by switching on the **POWER** switch at the rear of the machine. **All LED's on the control panel will light up for about a second and the traverse will beep three times.** The Manual status light should be illuminated. (For complete explanation refer to the "Powering Up" Section)

Step 2: Enter Variable Pitch Mode by pressing the **right 'JOG'** key while pressing the **'AUTO'** key. **Note that the program status LED "●○" flashes while in the Variable Pitch Programming Mode.**

Jog the carriage to the desired Home Position

Step 3: Enter the desired Length and Pitch.

Step 4: Press either the left or right **'SET HOME'** key to establish the home position for the first sequence. The carriage will now move the length of the first sequence

Step 5: to the start of the second sequence.

Enter the desired length and pitch

Step 6: Press the illuminated **'SET HOME'** key. The carriage will move to the beginning of the next sequence.

Step 7: Repeat step 6 and Step 7 for up to 32 sequences (only one direction).

Step 8:

TO SAVE:

Step 9: Save the winding sequences in memory by pressing the **'AUTO'** Key. The carriage will automatically return to the Home Position 1 and the Program Status **LED will display "●●"**. **You are now out of the Programming Mode, and in the Winding Mode.** The program will now remain in memory even if the traverse is turned off.

TO RUN:

At any time, to reset to the beginning of the Variable Pitch Program, press **'GO HOME'**. To move from one winding sequence to the next press **'STEP/ENTER'**. To reverse through the winding sequences, while pressing the lit **'SET HOME'** key press the **'STEP/ENTER'** key.

When the carriage is at a Home Position, adjustments can be made to the winding by using the hand-wheel on the winder. As the hand-wheel is moved (CW or CCW) the carriage will move away from the home position and the Step LED will darken. Pressing the **'STEP/ENTER'** key will return the carriage back to that home position as long as the carriage has not moved more than 1/8 of the winding sequence length. The Step LED will re-illuminated. If the carriage has been moved more than 1/8 of the winding sequence length, the carriage will move to the next home position when the **'STEP/ENTER'** key is pressed. However, the carriage can be moved back to the previous home by holding down the lit **'SET HOME'** key and then pressing the **'STEP/ENTER'** key.

It is possible even after the multiple sequences have been saved to change the first Home Position (H1). To do this, press **'GO HOME'**, then use the jog keys to move the carriage to desired the new home position. **The original Set Home LED will begin to flash. Press the 'SET HOME' key.** This will establish a new Home Position H1 with all other home positions maintaining the same relative distance from this new H1.

TO POWER DOWN:

To use the same program next time you turn on the traverse, press **'GO HOME'** to return to Home Position 1 and then turn off the traverse.

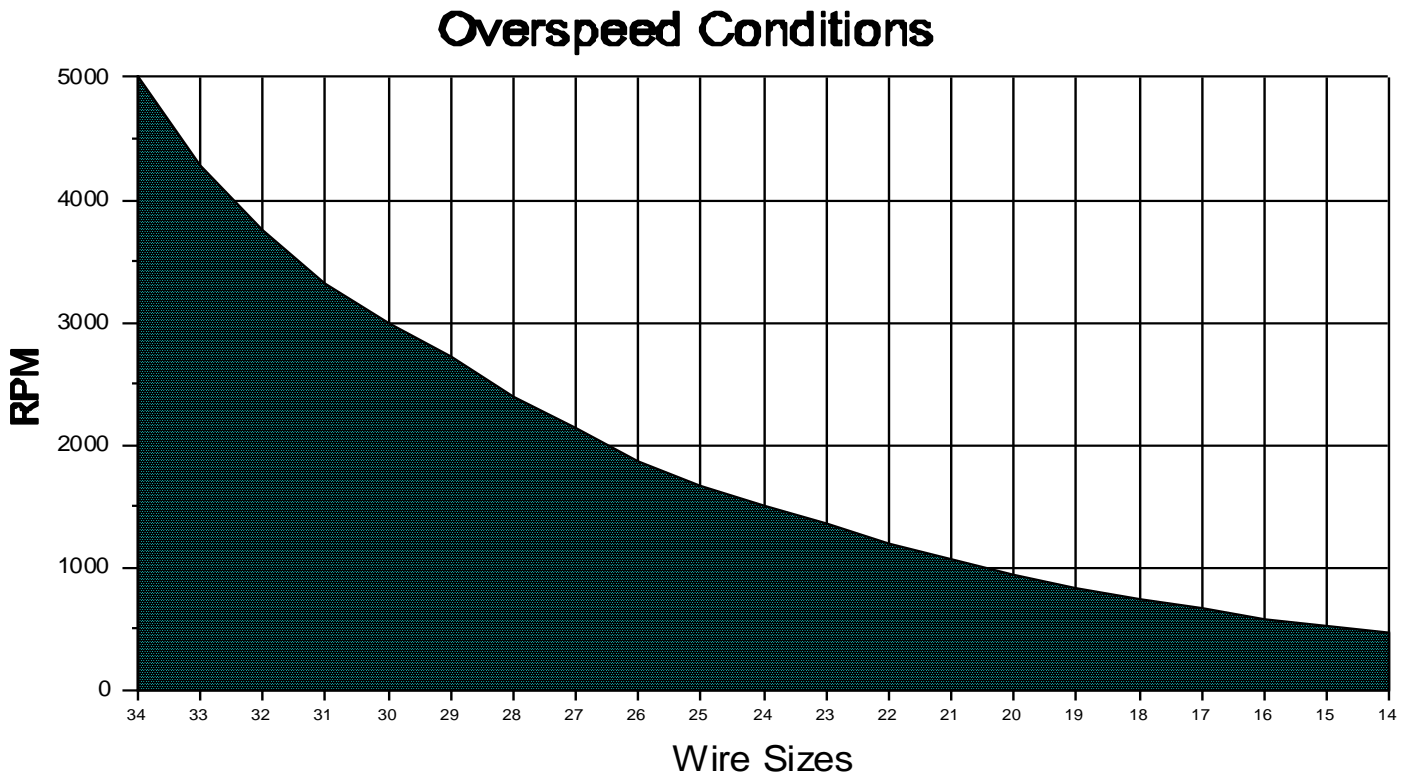
Make sure that the traverse is back to Home Position One before turning off the traverse.

TO ERASE and EXIT:

To remove the program from memory, and exit the Variable Pitch Mode, while pressing the **'AUTO'** key press right **'JOG'**, then press the **'MANUAL'** key.

Section 7 - Over-speed Conditions

The Traverse will enter into an Over Speed condition if the RPM of the winder exceeds the maximum travel speed of the traverse. This condition is based upon the speed of the winder, the pitch, and whether Half or Full Step Mode is selected. The following chart provides maximum speeds for the bobbin winder to avoid an Over Speed condition on the traverse. Stay within the shaded range to avoid an Over Speed condition.



Section 8 - Maintenance

The traverse has been designed to minimize maintenance requirements. With proper use and maintenance, your machine should operate trouble free for many years. The following maintenance is suggested:

MONTHLY: Once a month, using the 'JOG' keys, move the traverse carriage assembly the length of the traverse and back again.

LEAD SCREW: Maintain sufficient lubrication along the length of the lead screw to keep the carriage from binding. We recommend power-ac lubricant (Nook Part Number PAG-1) or equivalent. This product is available through Adams-Maxwell. The lead screw and nut must be kept free from wire clippings and other foreign material or the carriage will bind. Remove front cover to inspect lead screw and nut.

TORQUE RODS: Periodically put a light film of oil along the length of the torque rods to keep the carriage from binding. The front cover must be removed to gain access to the torque rods.

CORDS: Periodic inspection of all cords should be made. Replace damaged, worn or frayed cords immediately.

OVERHAUL: It is recommended that the traverse be returned to the factory for an overhaul at about 4000 hours of service (two years of daily use). Service includes:

1. Lubrication of the lead screw and torque rods
2. Cleaning
3. Checking all other components and replacing as needed

CALIBRATION CHECK: To verify carriage travel in relationship to the bobbin winder:

1. Program the bobbin winder for 200 turns.
2. **Select Auto Mode, set the pitch to 100 (in Normal Mode) and the length to 1.000, and 'SET HOME' left.**
3. Run the bobbin winder. The carriage should move 1 inch to the right and 1 inch back to the left. The left and right direction LEDs should toggle on/off and the 'AT HOME' LED should go on.

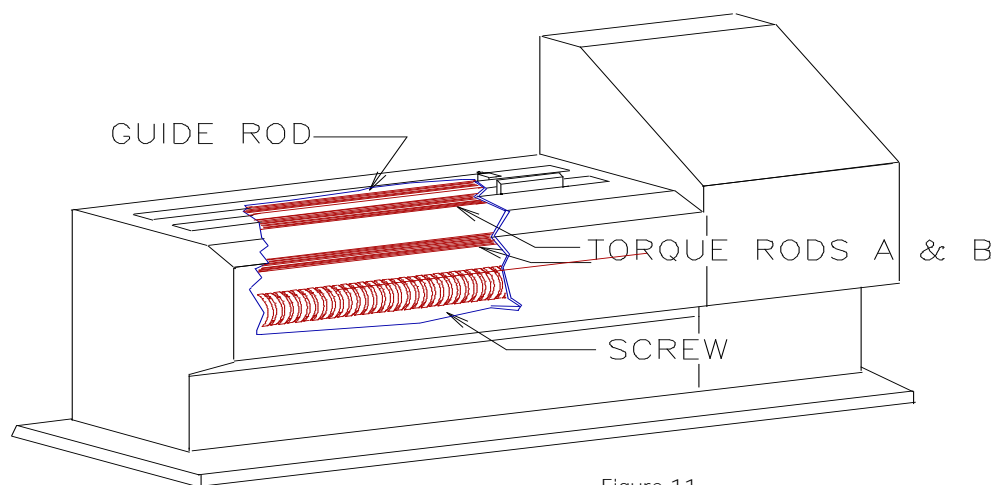


Figure 11

Section 9 - Accessories

Wire Guide Assembly

Mounts to either the carriage assembly or the guide rail assembly of the 1260 Traverse to guide wire from the dereeler to the work piece. The wire guide assembly comes with a top locator pulley, bottom feed off pulley and a wire grip assembly.



Wire Tube Assembly

Replaces the bottom feed-off pulley of the wire guide assembly for precision winding applications. Comes with one wire tube which must be specified. Additional tubes may be purchased separately.



Guide Rail Assembly

Mounts to the carriage assembly of the 1260 Traverse to support up to four wire guide assemblies for multi-bobbin winding applications



Pitch Settings for Fine Magnet Wire

WIRE SIZE (AWG)	BARE WIRE MAX Ø IN	SINGLE BUILD MAXIMUM Ø IN	DOUBLE BUILD MAXIMUM Ø IN
29	.0113	.0126	.0134
30	.0100	.0112	.0120
31	.00890	.0100	.0108
32	.00800	.00910	.00980
33	.00710	.00810	.00880
34	.00630	.00720	.00780
35	.00560	.00640	.00700
36	.00500	.00580	.00630
37	.00450	.00520	.00570
38	.00400	.00470	.00510
39	.00350	.00410	.00450
40	.00310	.00370	.00400
41	.00280	.00330	.00360
42	.00250	.00300	.00320
43	.00220	.00260	.00290
44	.00196	.00232	.00270
45	.00176	.00208	.00230
46	.00157	.00186	.00210
47	.00140	.00166	.00190
48	.00124	.00147	.00170
49	.00111	.00132	.00150
50	.00099	.00117	.00140
51	.00088	.00104	
52	.00078	.00092	
53	.00070	.00083	
54	.00062	.00073	
55	.00055	.00065	
56	.00049	.00058	



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