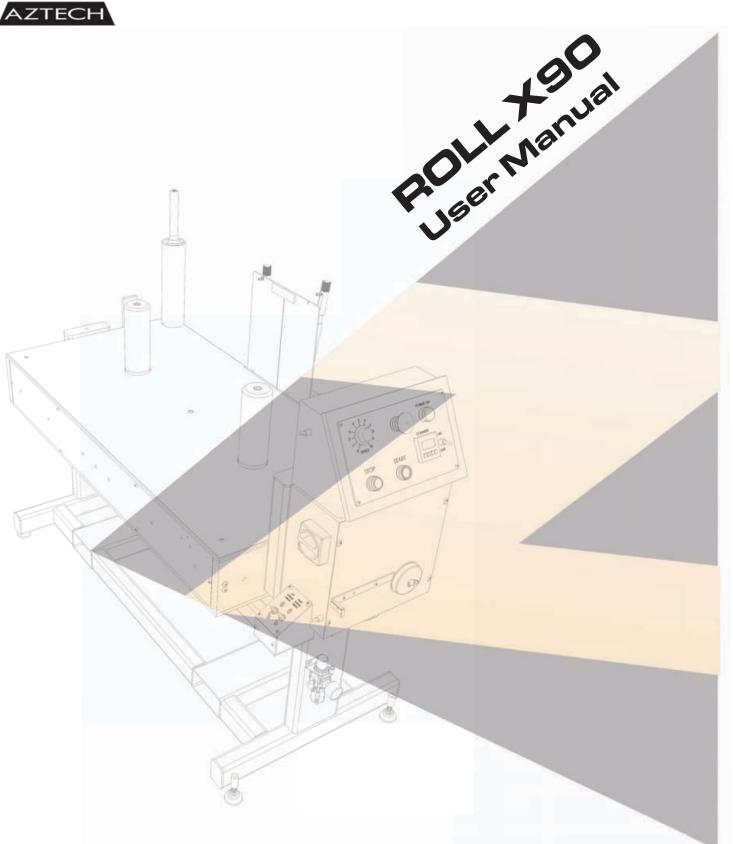


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ROLL X90 USER MANUAL

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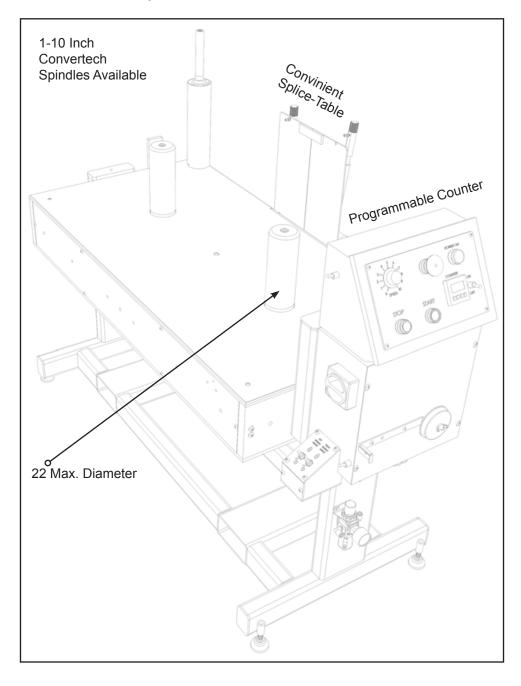


Section 1: General Information

1-1: Introduction

The AZTECH Roll X 90 is designed to be a highly productive, versatile, and simple to use and maintain. Before operating your new Roll X 90 Tilt Table Rewinder, fully read and understand this manual. Following the procedures outlined in this manual will help assure maximum performance. Keeping your machine properly set-up and maintained will assure years of productive and satisfactory service.

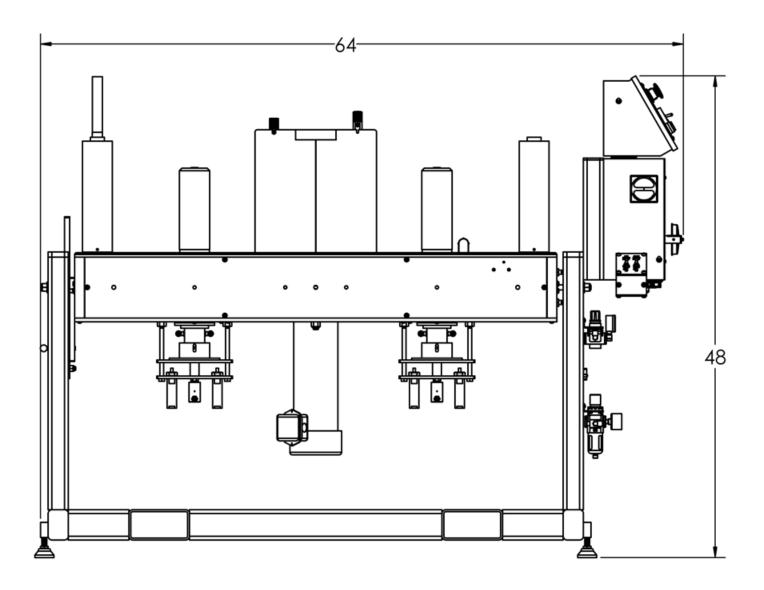
1-2: Machine Information and Specifications





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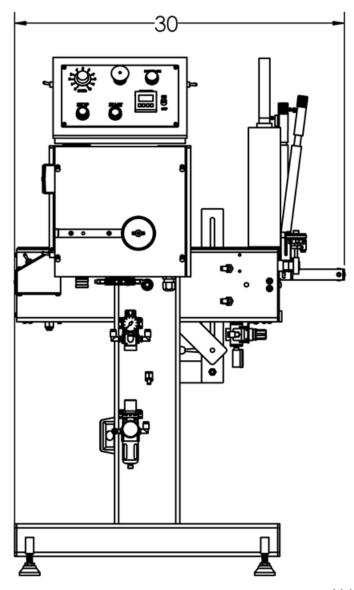
FRONT LAYOUT



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SIDE LAYOUT



ALLOW AT LEAST 3 FEET OF WORKING CLEARANCE AROUND THE PERIMETER OF THE MACHINE



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1-3: Safety

The Roll X 90 Tilt Table is designed to operate at high rates of speed, employing rollers and other moving parts. Operators must keep their hands clear of the machine when in operation. Making all operators aware of potential safety hazards will help minimize any chance of operator injury.

Section 2: Machine Installation

2-1: Preparation

It is important that your Roll X90 Tilt Table Rewinder situated on solid and level ground. Make sure that site allows for access to machine from all 4 sides. If the machine is placed on unstable or un-level ground, it may tip over risking damage or serious personal injury.

2-2: Un-crating Machine

To avoid damage to your new Roll X90 Tilt Table Rewinder, first remove the cover by removing all screws, then remove one of the 2 long side panels to expose machine. Remove all lag bolts which hold the machine to the base. Remove all boxes and parts inside crate.

2-3: Removal and Positioning

It is critical that the Roll X90 Tilt Table Rewinder be removed from the crate using a fork lift, making sure that the forks fit directly inside the 2 slots at base of the machine. Lift and remove from crate, and if equipped with adjustable feet, thread all 4 feet into threaded holes at machine's base, and lower into desired position. Machine may be leveled by turning adjustable feet until level.

2-4: Electrical and Pneumatic Connections

Your Roll X90 Tilt Table Rewinder requires 15A 115VAC and 90PSI high pressure air service. Connections to the machine are provided on whips. Connect the electrical cord to a suitable outlet and use the quick-connect to supply air to the machine.

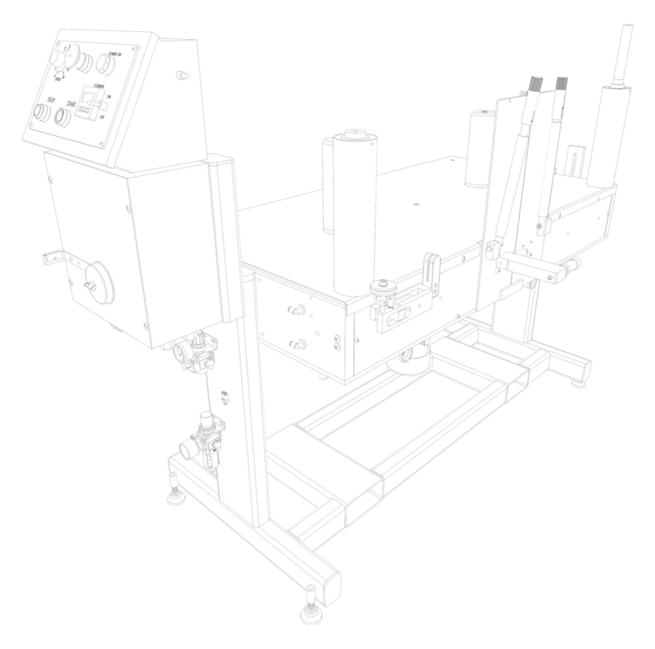
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Section 3: Machine Setup

3-1: Testing Before Operation

Make sure the area around your machine is clear of any objects which may impair the machine. Also inspect and make sure all belts, pulleys, rollers, and spindles are free and clear of any objects which may impede operation, and risk machine damage. Before threading your machine, accelerate and decelerate your machine through a full range of speeds, and make sure acceleration is smooth and free of any unnatural sounds or movements. Operate the spindle switches, making sure the pneumatic system is performing properly. Then turn power on, run machine at low speed to assure machine is working properly.





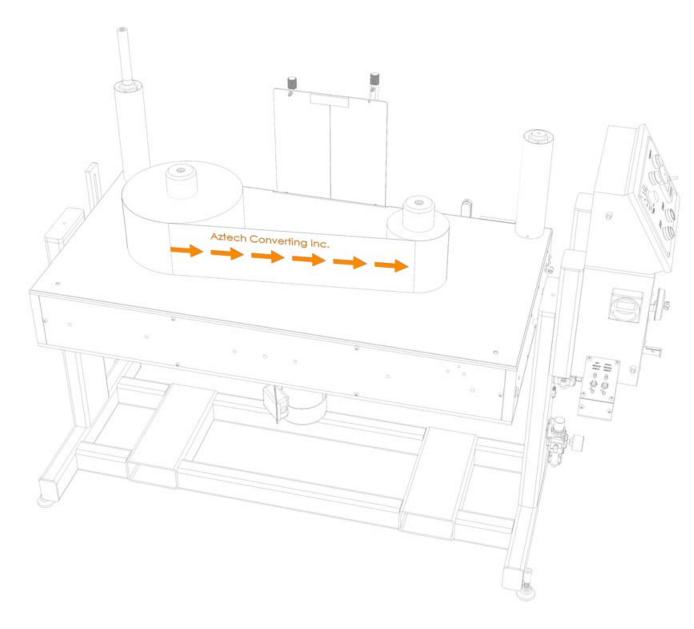
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3-2: Webbing the Machine

Proper webbing of your Roll X90 Tilt Table is vital to optimal machine performane. Paths are shown on the followind pages to accomplish different converting tasks with various substrates.

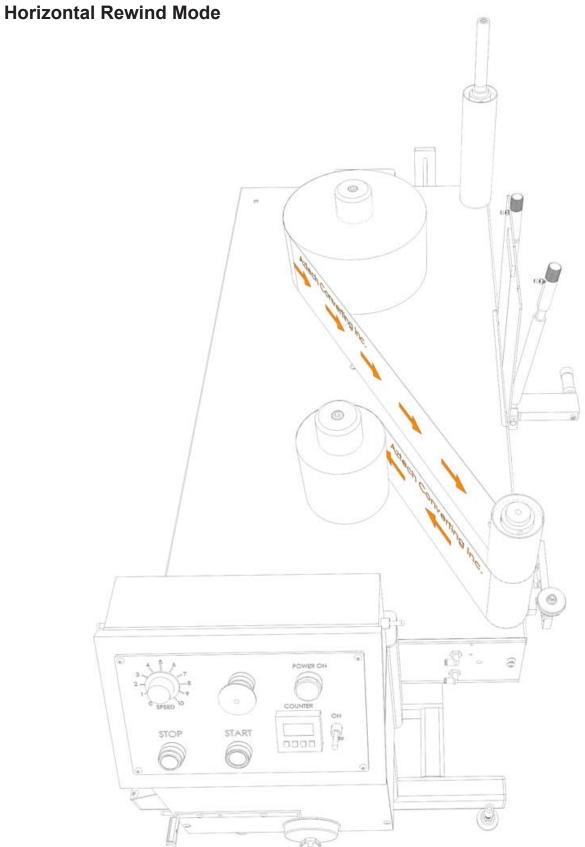
To Web the Machine

- 1. Make sure the unwind and rewind switch is in the off position.
- 2. Assure that both splice-table clamps are released into the up positon.
- 3. Load roll onto unwind spindle and carefully thread the web through the machine makind sure to follow the web paths shown.



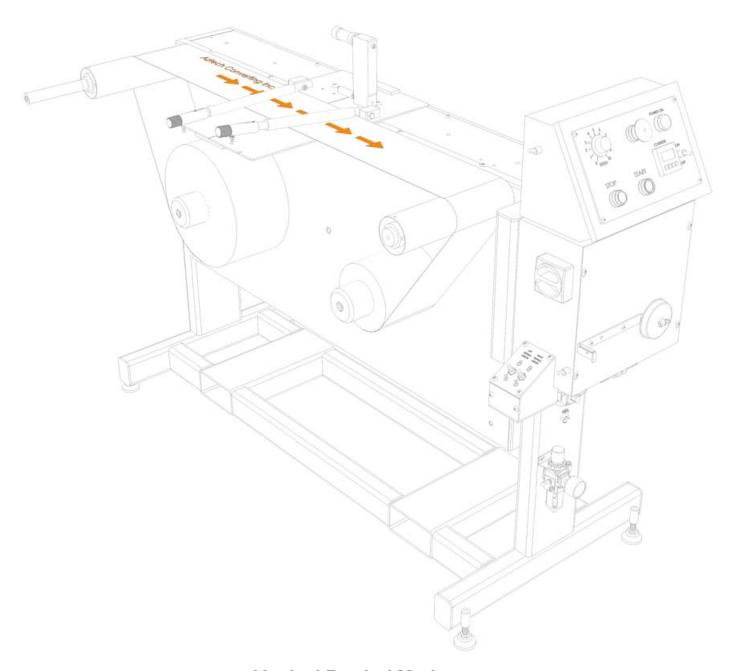
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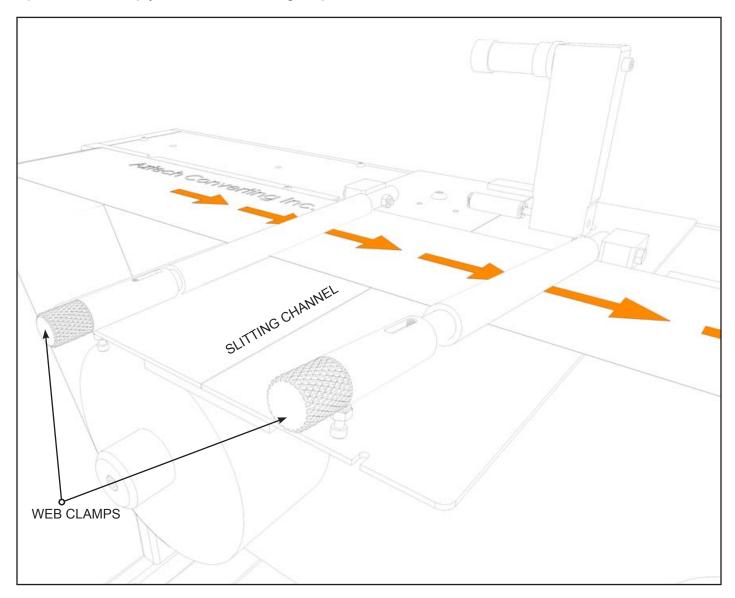
Vertical Rewind Mode

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3-4: Splice Table Operation

The splice table on your Roll X90 is located just above the Unwind Station, just after the optional Inspection Tower. To operate the Splice Table, simply follow the following steps:



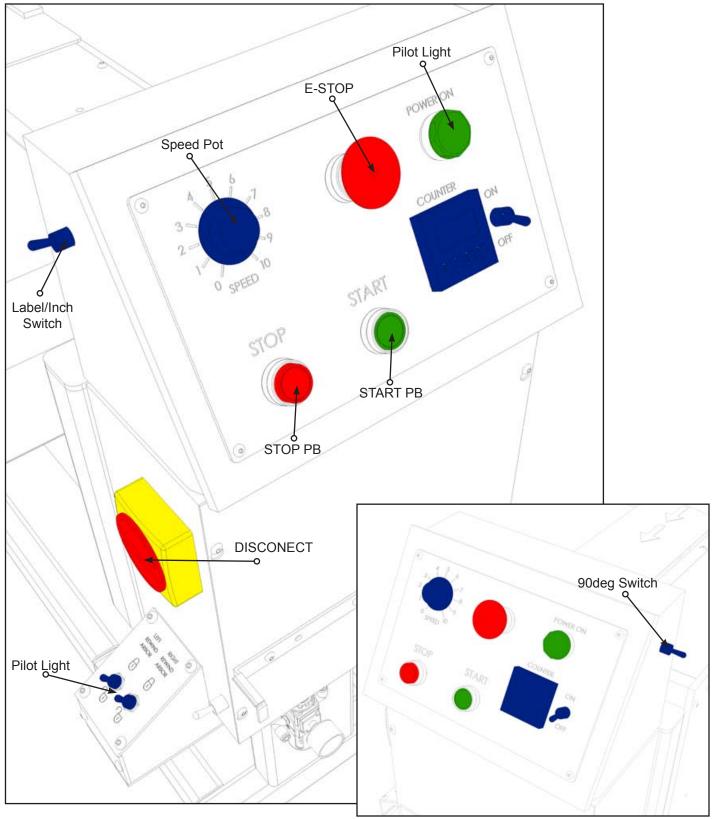
- 1. Turn off machine and engage both web clamps.
- 2. Using a razor blade, carefully cut the web along the slicing channel. Disengage the clamp nearest the unwind roll. Be sure to leave the other clamp engaged.
- 3. After waste has been removed, pull through new web, carefully align with web, and lower the handle to hold.
- 4. Again using a razor blade, cut the web, discard waste, pull tape under webs, fold to secure and cut tape.
- 5. Disengage both clamps.



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Section 4: Machine Operation

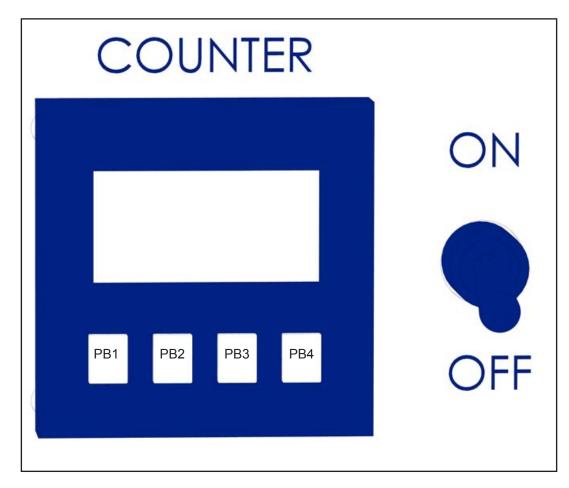
4-1: Operator Control Panel



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4-2: Setting The Counter



To operate the counter, first set the Roll X90 to count in the desired units. Program the set counts using following proceedure:

- 1. Press PB2 to access PRS1 (to begin slowdown), PRS2 (final stop count.)
- 2. Press PB4 to the digit that you are changing
- 3. Press PB3 to enter the number
- 4. Press PB2 to enter normal operating mode

Press "RST" to reset at any time. If you need any further information on the counter, refer to the counter operator manual included with this manual.



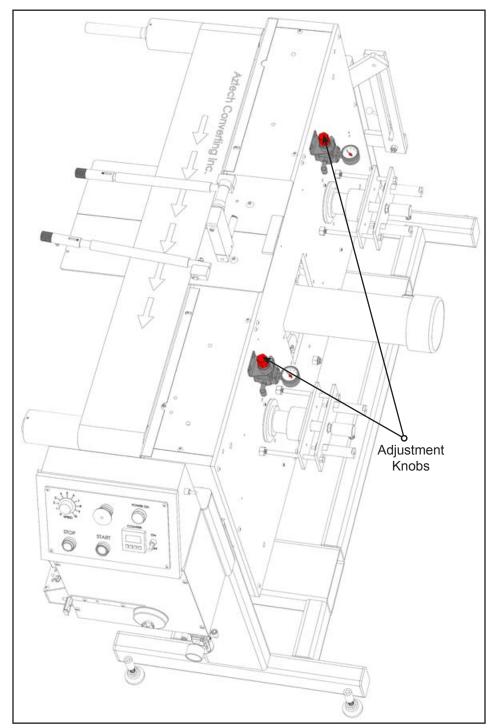
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4-3: Counter Program

Preset	Description	Setting	Notes
1	Entry	digit	The preset is changed digit-by-digit.
2	Ac P5	٦-	The prescaler is not change-able without editing the program.
3	P5cALr	1.00000	Each pulse from the encoder equals 1.0000 counts on the counter.
4	dEc P		There is no decimal displayed.
5	Cnt In	C1-Ud	The counter is in Up/Down mode, set by input to F1.
			Auto reset to 0 after count is reached. Out1 is on at preset 1, off at preset 2. Out2 is on at preset 2 for
9	Oper	12	time set in PRESET 14.
7	AcPr5	-y-y	The preset counts are acessable without changing the program.
8	PrESEt-Prs1	10	Default count set 1 is 10.
9	PrESEt-Prs2	20	Default count set 2 is 20.
			If this were "yes", the offset between count 1 and count 2 would be locked, i.e. changing preset 1 would
10	PltrAc-PRS2	no	change preset 2 to keep the same difference.
11	Ac Out	1-1-	Output timer values are locked in programming.
12	OutrES	0.01 SEC	The output timer resolution is 0.01 seconds.
13	OutPut-1t	0.10	This has no affect in Oper 12.
14	OutPut-2t	1.10	Output 2 will be on for 1.1 seconds after count 2 is reached.
15	rEUOut	-y-n	Reverse Logic Out, the first output is reversed, the second is standard logic.
			The display is true. The small "01" and "02" in the lower right correspond to the status of the relay
16	rEUAnu	-n-n	outputs. 01 displayed means Out1 is closed and vice versa.
17	OutPup	-O-P	On power up, the first output is turned off and the second is sent to it's previous state
18	USr In1	inhib	Input to terminal IN1 stops counter from counting (NOT USED).
19	USr In2	r5t-L	Input to terminal IN2 stops counter from counting (NOT USED).
20	USr-F1	r5t-L	Presing the F1 key resets the count.
21	CodE	0	Allows the program to be locked. (NOT USED)
22	SCroLL	no	The display does not scroll.
23	FAcSet	no	Entering "yes" resets the counter to factory default.

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4-3: Setting Web Tension

To set web tension, siimply turn the air-controlled valves clockwise for more tension and counter-clockwise for less tension. Taking note of the settings on the provided air gauges will aissist in setting the pressures correctly.

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Section 5: Troubleshooting/Maintenance

5-1: Why doesn't the machine turn on?

First check to make sure that the main power switch is turned on. Then make sure that the emergency stop button is disengaged. If this does not remedy to situation, check the fuses inside the electrical enclosure.

5-2: The counter is not counting accurately.

Make sure that counter wheel riding on the idler wheel is free of dust or debris and is not visibly damaged.

5-3: Why is the counter not counting in inches?

Make sure that the counter sensor is flashing red when the wheel turns, assuring that the sensor is powered and operating. If equipped with the optional label sensor, assure that the switch is set to "INCHES".

5-4: Maintenance Schedule

Daily:

- -Check the airline and power cord for frays and damage
- -Check to assure that the E-STOP functions correctly
- -Clean machine after use, use compressed air to clean debris from the rewind spindle

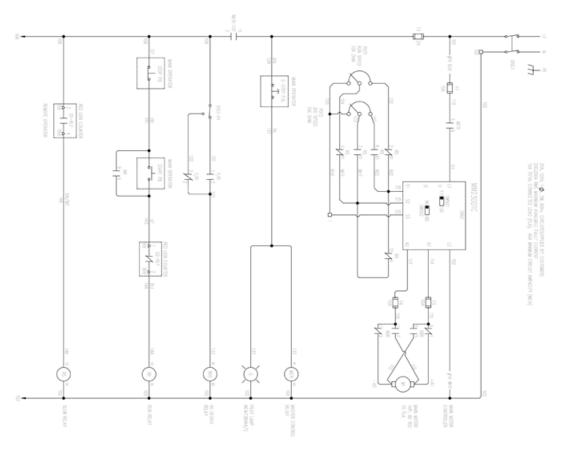
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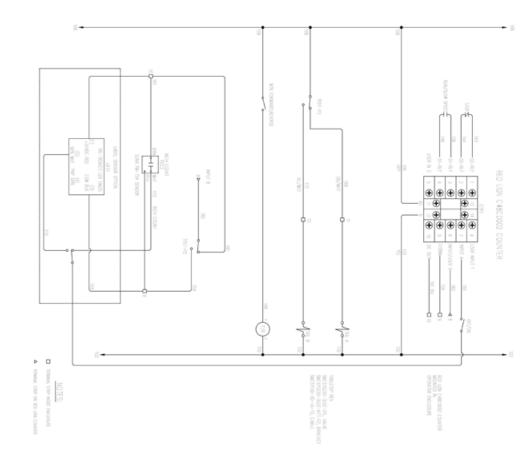
- -Check drive belt for wear
- -Lubricate bearings

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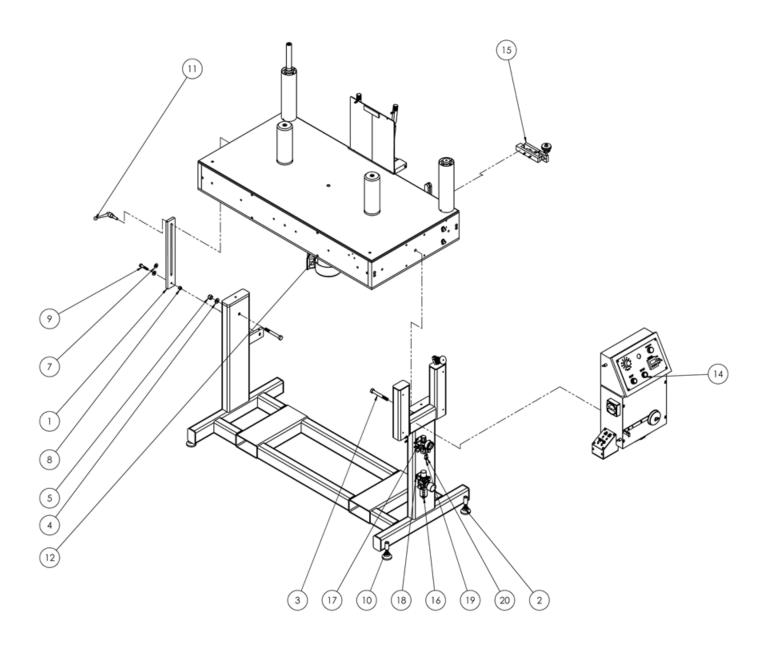
5-5: Electrical Schematic







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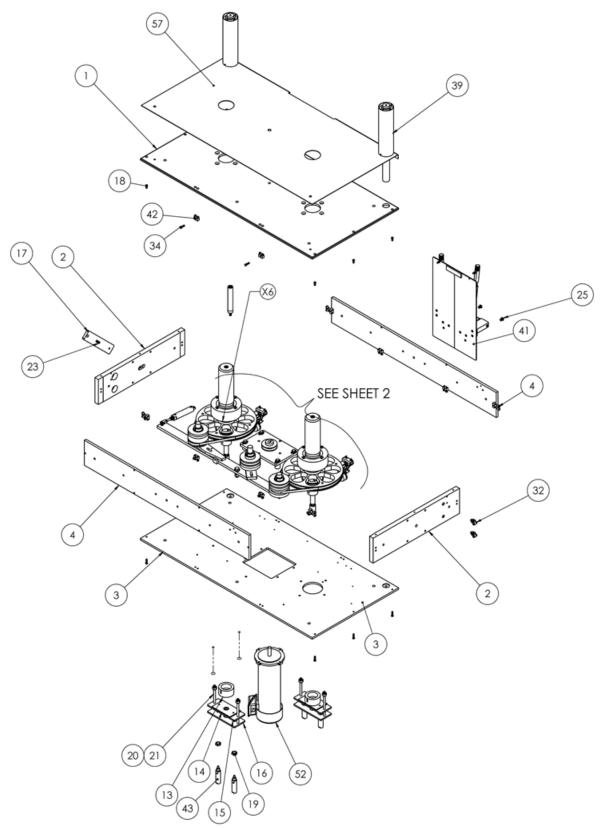


Section 5-6: Station Details

ITEM NO.			Default /QTY.
1	18169	SLOT LINK	1
2	6111K22	LEVELING PAD,1/2-13	4
3	HEX BOLT_~500-13 UNC_4_SIMP		2
4	WSHR A500 HARD	HARD FLAT WASHER 1/2'	2
5	HEX NUT500-13 UNC_0_LOCK	NYLOCK NUT 1/2-13	2
6	SCH_~164-32 UNC_0~5_SIMP	SOCKET HEAD CAP SCREW 8-32 X 1/2"	1
7	WSHR A375 HARD	3/8" HARD WASHER	2
8			1
9	HEROOLE OF TOTAL OF THE STATE O		1
10			1
11	1 6271K32 CLAMP HANDLE 1.18 THREAD LENGTH		1
12	2 19623 TABLE TOP REWINDER TABLE ASSEMBLY		1
13	BTNHD_~250-20 UNC_0~5_SIMP	BUTTON HEAD CAP SCREW 1/4-20 X 1/2"	4
14	4 20630 X90 TABLE TOP REWIND ELECTRICAL CONTROL ASSEMBLY		1
15	5 20300 TABLE TOP COUNTER MAIN ASSEMBLY		1
16	AW20-N01BG-CZ x90		1
17	EXP3417	AIR REGULATOR WITH GUAGE AND FITTINGS	1
18	BTNHD_~190-32 UNF_0~5_SIMP	BUTTON HEAD CAP SCREW 10-32 X 1/2"	2
19	KQ2U03-00A	Union "Y"	1
20	0 BTNHD_~138-32 UNC_0~5_SIMP BUTTON HEAD CAP SCREW 6-32 X 1/2"		1



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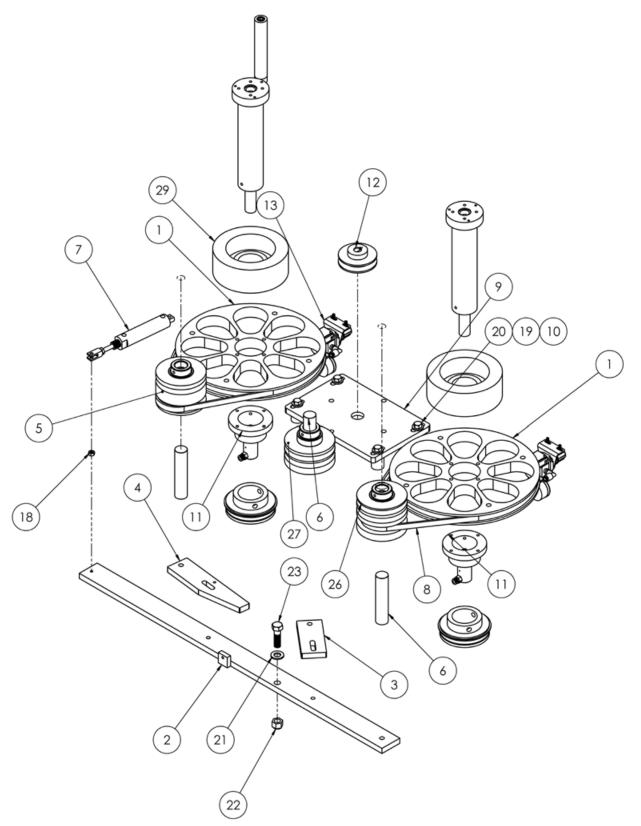


Section 5-6: Station Details

EM O.	PART NUMBER	DESCRIPTION	Default/G
	EXP3492	TABLE TOP REWINDER TOP PLATE	i
	EXP3511	TABLE TOP REWINDER SIDE SPRT PLATE	2
	EXP3494	TABLE TOP REWINDER BOTTOM PLATE	1
	EXP3495	TABLE TOP REWINDER FRONT AND REAR SPRT PLATE	2
	EXP3520	PULLEY ARBOR DRIVE	2
	EXP3531	TABLE TOP REWINDER SHIFT BAR WELDMENT	1
	EXP3534	JACK SHAFT SPRT PLATE #1	1 1
	EXP3544	HUB ASSEMBLY SPRT SHAFT	3
	NCMC106-0200	1-1/16 BORE 2" STROKE DOUBLE ACTING SINGLE ROD	1 3
			+ -
_	420L050 INSIDE OUT	3/8 PITCH BELT 1/2 WIDE SKETCH LINE IS PITCH DIA	2
	EXP3551	MOTOR MOUNT PLATE, 1HP	1
	17659	1" DIA STANDOFF 1" LONG .377 HOLE THRU	4
	EXP4088	BRAKE CUP	2
	EXP4087	BRAKE PAD	2
5	EXP4086	BRAKE BRACKET	2
6	EXP4092	BRAKE CYLINDER MOUNT	2
7	18172	TILT LINK	1
	SCH .250-20 UNC 0.5 SIMP	SOCKET HEAD CAP SCREW 1/4-20 X 1/2"	14
-	NCME088-0100 MOUNT NUT	000KETTEND 0711 00KETT 1/4 20 X 1/2	4
_	HEX NUT .500-13 UNC 0 SIMP	HEX NUT 1/2-13	4
	HEX BOLT_~375-16 UNC_6_SIMP	HEX BOLT 3/8-16 X 6 GRADE 5	4
	WSHR A375 HARD	3/8" HARD WASHER	4
	FLH-SCH-82_~375-16 UNC_1~25_SIMP		1
	SCH_~164-32 UNC_0~5_SIMP	SOCKET HEAD CAP SCREW 8-32 X 1/2"	4
_	BTNHD_~375-16 UNC_0~5_SIMP	BUTTON HEAD CAP SCREW 3/8-16 X 1/2"	2
_	FLH-SCH-82190-32 UNF_0.5_SIMP	FLAT HEAD CAP SCREW 10-32 X 1/2"	2
7	HEX NUT_~250-20 UNC_SIMP	HEX NUT 1/4-20	1
8	HEX BOLT_~375-16 UNC_1~25_SIMP	HEX BOLT GRADE 5, 3/8-16 X 1-1/4	4
9	WSHR A500 HARD	HARD FLAT WASHER 1/2'	1
0	HEX NUT500-13 UNC_0_LOCK	NYLOCK NUT 1/2-13	1
_	HEX BOLT ~500-13 UNC 1~75 SIMP	HEX BOLT 1/2-13 X 1-3/4" GRADE 5	1
_	KQ2LE03-00	5/32 ONE TOUCH TO 5/32 ONE TOUCH 90 DEGREE BULK HEAD	2
_	EXP3417	AIR REGULATOR WITH GUAGE AND FITTINGS	2
_	BTNHD ~250-20 UNC_1_SIMP	BUTTON HEAD CAP SCREW 1/4-20 X 1"	26
-	FLH-SCH-82 .3125-18 UNC 1.25 SIMP	BOTTON TIEAD CAP SCREW 174-20 X 1	8
_	19122	TABLE TOR ELANCED ARROR WELDMENT	2
	00017001	TABLE TOP FLANGED ARBOR WELDMENT	
		OFFICE OF WERE OF A VIEW OFFICE OFFICE AND THE STATE OF T	2
	11878	SERIES C, WEB CLAMP IDLER SPRT SHAFT 16"	2
	12810	IDLER ASSEMBLY,RECESSED 1-3/8 BORE,10"	2
	EXP3535	JACK SHAFT SPRT PLATE #2	1
_	19157	TABLE TOP REWINDER, SPLICE TABLE ASSEMBLY	1
2	18693	MOUNT BLOCK 1/2 X 1/2 X 1 1/4-20 THREADS BOTH SIDES	12
3	NCMB-088-0100CS	AIR CYLINDER	4
1	1005-020-019 WASHER	ROTARY UNION WASHER	2
5	1005-020-019	ROTARY UNION	2
-	KQ2H07-019	1/4 TUBE TO 1/8 MPT SMC	2
	19482	TABLE TOP, LEFT DRIVE PULLEY ASSEMBLY	1
	ARBOR SHIM 1 X 1-1_2 X 1_8	1" ID X 1-1/2 OD X 1/8" THICK	3
-	19486	TABLE TOP, RIGHT DRIVE PULLEY ASSEMBLY	1
	19484	TABLE TOP, RIGHT DRIVE PULLEY ASSEMBLY	1
			1 2
	1 IN SET COLLAR	1" SET COLLAR	3
-	2M170 MOTOR	1HP 90VDC MOTOR	1
-	13601 ASSEMBLY	ER 32 BEARING	2
	19625	TABLE TOP REWINDER ER-32 BEARING BLOCK ASSEMBLY	2
-	19262	TABLE TOP KNURLED TILT HANDLE	1
5	COLL DZE 1/ UNIO / E CIMB	SOCKET HEAD CAP SCREW 3/8-16 X 6-1/2"	1
5	SCH_~375-16 UNC_6~5_SIMP		1
5	20164	STAINLESS PLATE TABLE TOP REWINDER	
5 6 7	20164		2
5 6 7 8	20164 19627	TABLE TOP PULLEY HUB	2
5 7 8	20164		2 1 8



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Section 5-6: Station Details

ITEM NO.	PART NUMBER	DESCRIPTION	INTERNAL PARTS/QTY.
1	EXP3520	PULLEY ARBOR DRIVE	2
2	EXP3531	TABLE TOP REWINDER SHIFT BAR WELDMENT	1
3	EXP3534	JACK SHAFT SPRT PLATE #1	1
4	EXP3535	JACK SHAFT SPRT PLATE #2	1
5	19482	TABLE TOP, LEFT DRIVE PULLEY ASSEMBLY	1
6	EXP3544	HUB ASSEMBLY SPRT SHAFT	3
7	NCMC106-0200	1-1/16 BORE 2" STROKE DOUBLE ACTING SINGLE ROD	1
8	420L050 INSIDE OUT	3/8 PITCH BELT 1/2 WIDE SKETCH LINE IS PITCH DIA	2
9	EXP3551	MOTOR MOUNT PLATE, 1HP	1
10	17659	1" DIA STANDOFF 1" LONG .377 HOLE THRU	4
11	19627	TABLE TOP PULLEY HUB	2
12	ak30x5-8	AK30 X 5/8 V BELT PULLEY	1
13	EXP3417	AIR REGULATOR WITH GUAGE AND FITTINGS	2
14	19122	TABLE TOP FLANGED ARBOR WELDMENT	2
15	1005-020-019 WASHER	ROTARY UNION WASHER	2
16	1005-020-019	ROTARY UNION	2
17	KQ2H07-019	1/4 TUBE TO 1/8 MPT SMC	2
18	HEX NUT_~250-20 UNC_SIMP	HEX NUT 1/4-20	1
19	WSHR A_375 HARD	3/8" HARD WASHER	4
20	HEX BOLT_~375-16 UNC_1~25_SIMP	HEX BOLT GRADE 5, 3/8-16 X 1-1/4	4
21	WSHR A500 HARD	HARD FLAT WASHER 1/2'	1
22	HEX NUT500-13 UNC_0_LOCK	NYLOCK NUT 1/2-13	1
23	HEX BOLT_~500-13 UNC_1~75_SIMP	HEX BOLT 1/2-13 X 1-3/4" GRADE 5	1
24	ARBOR SHIM 1 X 1-1_2 X 1_8	1" ID X 1-1/2 OD X 1/8" THICK	3
25	1 IN SET COLLAR	1" SET COLLAR	3
26	19486	TABLE TOP, RIGHT DRIVE PULLEY ASSEMBLY	1
27	19484	TABLE TOP, CENTER DRIVE PULLEY ASSEMBLY	1
28	13601 ASSEMBLY	ER 32 BEARING	2
29	19625	TABLE TOP REWINDER ER-32 BEARING BLOCK ASSEMBLY	2
30	19262	TABLE TOP KNURLED TILT HANDLE	1
31	SCH_~375-16 UNC_6~5_SIMP	SOCKET HEAD CAP SCREW 3/8-16 X 6-1/2"	1
32	18990	1641 BEARING 1" ID X 2" OD X .563 WIDE SHIELDED	1

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Roll X90 USER MANUAL

Section 6: Warranties and Service

6-1: Warranties & Provisions

WARRANTIES: All equipment manufactured and sold by AZTECH Converting Systems (Seller) is warranted to be free of defective materials and workmanship under normal use and service for a period of one (1) year from the date of delivery to Buyer's premises. All commercial components not manufactured by Seller carry the original manufacturer's warranty. At Seller's discretion, Seller may provide on-site warranty service for a period of ninety (90) days from the aforementioned date.

REMEDIES If within the Warranty Period any such Equipment is proven to Seller's satisfaction to be defective in either material or workmanship, Seller, at its sole discretion, shall (a) repair or replace defective parts on the Equipment at Seller's cost, or (b) grant a reasonable allowance on account of such a breach. If within the Warranty Period the Seller receives notice from Buyer of defects in parts or materials. Seller will ship (ground, prepaid) replacement parts) and invoice Buyer for the full cost of the replacement parts). Buyer will receive a Return Authorization (RA) from seller, and return defective parts or materials to Seller, who at its sole discretion shall determine whether defective parts or materials are or are not subject to exclusion from this warranty as provided herein. Any defective parts or material not excluded from the Warranty Period will then be fully credited to Buyer.

EXCLUSIONS

THE FOLLOWING ITEMS ARE EXCLUDED FROM THIS WARRANTY:

- Defects or damage caused by careless or improper use.
- Parts that need periodic replacement from wear during normal operation.
- Routine maintenance and adjustment.
- Failure or damage caused by improper installation or inadequate maintenance by Buyer.
- Failure or damage caused by equipment modifications by Buyer.
- Equipment damage resulting from an accident, or abnormal conditions of operation.

DISCLAIMER OR WARRANTY

NO OTHER WARRANTY IS EXPRESSED OR IMPLIED INCLUDING WARRANTIES OF MER-CHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSE. SELLER IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGE SUCH AS, BUT NOT LIMITED TO LOSS IN PROFITS, LOSS OF USE OF EQUIPMENT, OR INCREASED IN OPERATING COSTS OR EXPENSES.

6-2: Technical Service

In the event that your X90 is not functioning properly or if you have any technical questions, an AZ-TECH Technical Service representative is available to assist you. Contact information is as follows:

Phone: 1-480-951-8351

1-800-829-8351

Fax: 1-480-998-5409

E-Mail: techservice@aztechconverting.com