



MACHINE SERIAL NO. 4836&4837

INSTRUCTION AND SERVICE MANUAL**FOR THE****M-350 HK****PLASTIC BOTTLE FEEDING SYSTEM****BUILT FOR:****HOME CHEF****SAN BERNADINO, CALIFORNIA**

NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

BY

**PACE PACKAGING LLC
22 MADISON AVE
FAIRFIELD, NEW JERSEY 07004
2/4/21
PHONE: (973) 227-1040**

**SOFTWARE: AB MCRO 850 CCW (CONNECTED COMPONENTS WORKBENCH)
VERSION NUMBER: 12**

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SPECIFICATION

SECTION I

SECTION I**PACE PACKAGING LLC****SPECIFICATION**

PACE UNSCRAMBLER MODEL NO. : M-350

PACE UNSCRAMBLER SERIAL NO. : 4836

PACE HOPPER MODEL NO. : 45 CU FT

PACE HOPPER SERIAL NO. : 4837

POWER REQUIREMENTS:

VOLTAGE	PHASE	FREQUENCY	AMP.
220 VAC	3Ø	60 Hz	16.7A

COMPRESSED AIR REQUIREMENT:

	PRESSURE	VOLUME
US	80 PSI	36.25 CFM
METRIC	5.51 BARS	1.03 CMM

This unit has been prepared to unscramble plastic containers only. The type, size, and speed(s) are indicated below.

CONTAINERS:					
BOTTLE NUMBER	SIZE	STYLE	COLOR	MATERIAL	SPEED BPM
1	1 oz	Round	Natural	HDPE	110 bpm
2	2 oz	Round	Natural	HDPE	110 bpm
3	4 oz	Round	Natural	HDPE	95 bpm
4	8 oz	Round	Natural	HDPE	80 bpm
5	2 oz	Jar	Natural	HDPE	110 bpm
6	3 oz	Jar	Natural	HDPE	110 bpm
7	4 oz	Jar	Natural	HDPE	95 bpm
8	8 oz	Jar	Natural	HDPE	80 bpm
9	12 oz	Jar	Natural	HDPE	80 bpm
10	16 oz	Jar	Natural	HDPE	80 bpm

NOTICE

IT IS ESSENTIAL THAT THIS MANUAL BE READ AND UNDERSTOOD BY QUALIFIED PERSONNEL BEFORE INSTALLATION OR START UP OF EQUIPMENT BEGINS.

INTRODUCTION

SECTION II

THE PACESETTER PLASTIC BOTTLE UNSCRAMBLING SYSTEM

Model M-350

NOTICE

IT IS ESSENTIAL THAT THIS MANUAL BE READ AND UNDERSTOOD BEFORE
INSTALLATION OR START UP OF EQUIPMENT BEGINS.

INTRODUCTION

The Pacesetter Plastic Bottle Unscrambling System is a very compact and flexible System that takes a wide range of plastic bottles from a random, scrambled condition and places them on a conveyor in an organized manner.

This manual describes the three major System modules available. They are:

- * Bulk Hopper
- * Unscrambler
- * Bottle Axial Orientor

Your System may have some or all of these modules.

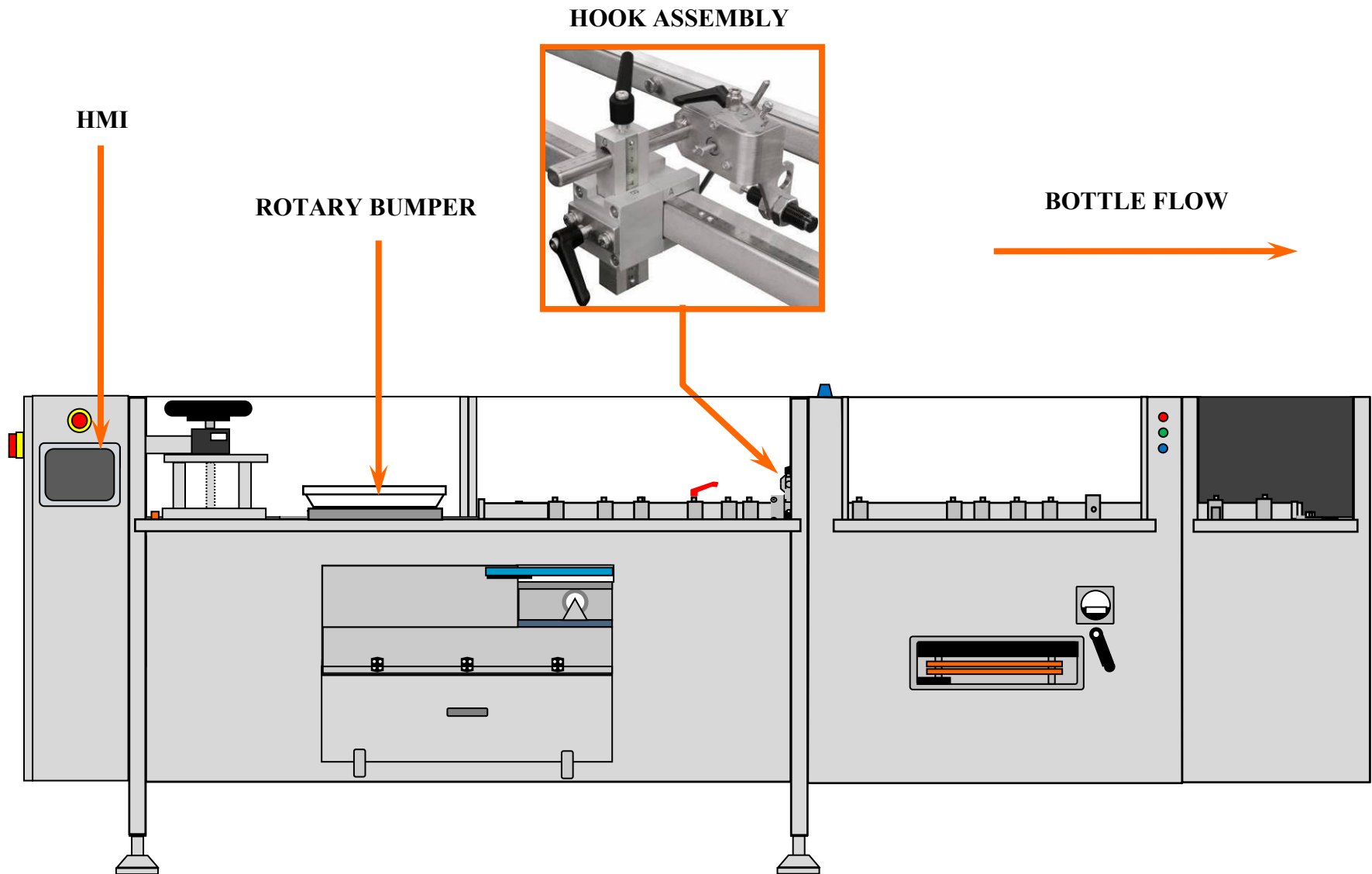
This manual provides the information required for maximum efficiency of your System. The manual should be read thoroughly and the illustrations should be studied carefully by all personnel involved in installing, operating, and maintaining the System.

A Pace Packaging Corporation (Pace) serviceman is available to assist with installation and training. Arrangements for service should be made directly with Pace. Prior to a start up service visit, the System should be positioned in its permanent location and connected to the factory air and electric facilities. Further, the list of recommended spare parts should be on hand during start up.

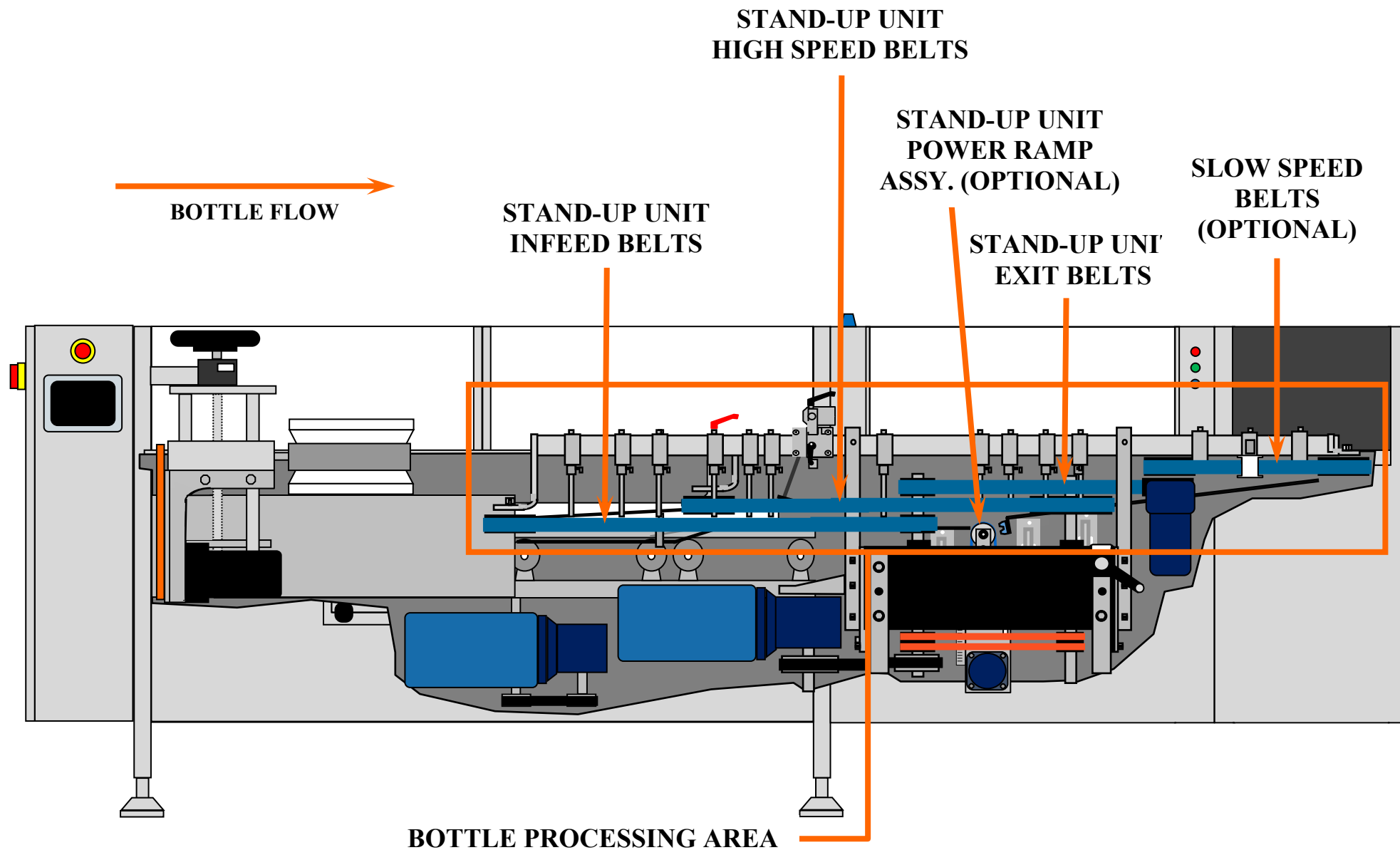
Warning

All operators must be properly trained in the use of this equipment.

PARTS IDENTIFICATION



PARTS IDENTIFICATION



PARTS& MAINTENANCE
SECTION III- PART 1

SPARE PARTS LIST
(FOLLOWED BY SPARE PARTS
IDENTIFICATION PAGES)

**PACE PACKAGING LLC
22 MADISON ROAD
Fairfield, NJ 07004
973-227-1040**

RECOMMENDED SPARE PARTS
SPEC: STANDARD 350 W/HOOK S/N# 4836

February 26, 2021

AIR POWER

<u>QUAN</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1 EA	33363	ROTARY ACTUATOR/HOOK ASSY.;8MM

DRIVES

<u>QUAN</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1 EA	44510	REDUCER;60:1; HOPPER ELEVATOR
1 EA	44093	REDUCER;30:1;STAND-UP UNIT
1 EA	45220	REDUCER;60:1;DISC
1 EA	400579	MOTOR;1HP;VAC; HOPPER
2 EA	44507	MOTOR;1HP;VAC; DISC & SUU
1 EA	46802	MOTOR& REDUCER COMBO; 3/8 HP; ROTARY BUMPER

BELTS

<u>QUAN</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1 EA	35954	BELT; ROTARY BUMP.DRIVE
1 EA	35402	BELT; TWIN A;INFEED OPERATOR SIDE;LOWER
1 EA	35403	BELT; TWIN A;INFEED NON-OPER.SIDE
1 EA	300754	BELT; TWIN A WHITE;HIGH SPEED
2 EA	300752	BELT; TWIN A WHITE;EXIT
1 EA	31191	GEARBELT;D660H100
4 EA	35536	DRIVE BELT;SINGLE A
1 EA	46984	BELT;2"CLEAT; HOPPER ELEVATOR
2 EA	32556	BELT;DISC DRIVE
1 EA	38546	BELT;473L050;MDU ADJUSTMENT

ELECTRICAL PARTS

<u>QUAN</u>	<u>PART#</u>	<u>DESCRIPTION</u>
1 EA	37516	AC MOTOR DRIVE;1HP
1 EA	200384	PHOTO ASSEMBLY; DISC EYE
1 EA	200384	PHOTO ASSEMBLY; JAM EYE
1 EA	200382	PHOTO ASSEMBLY; DOWN STREAM BACK-UP EYE

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RECOMMENDED SPARE PARTS
SPEC: STANDARD 350 W/HOOK S/N# 4836

February 10, 2021

MECHANICAL WEAR PARTS

<u>QUAN</u>		<u>PART#</u>	<u>DESCRIPTION</u>
4	EA	34656	PULLEY;GEARBELT IDLER ASSY
6	EA	300232	ROLLER
1	EA	36845	SHEAVE;2AK34 IDLER ASSEMBLY
4	EA	34886	BLADE;ROTARY BUMPER
4	EA	33897	CASTER;ASSEMBLY;URETHANE;4&6'
1	EA	33674	HOOK; GENERIC
1	EA	23199	SHOCK ABSORBER W/PAD

**PACE PACKAGING LLC
22 MADISON ROAD
Fairfield, NJ 07004
973-227-1040**

RECOMMENDED SPARE PARTS

February 10, 2021

SPEC: STANDARD 45 CU FT HOPPER S/N# 4837

DRIVES

<u>QUAN</u>		<u>PART#</u>	<u>DESCRIPTION</u>
1	EA	44510	REDUCER;60:1;HOPPER ELEVATOR
1	EA	400579	MOTOR;1HP;HOPPER ELEVATOR

BELTS

<u>QUAN</u>		<u>PART#</u>	<u>DESCRIPTION</u>
1	EA	46984	BELT;2"CLEAT; HOPPER ELEVATOR

ELECTRICAL PARTS

<u>QUAN</u>		<u>PART#</u>	<u>DESCRIPTION</u>
1	EA	37516	AC MOTOR DRIVE;1HP

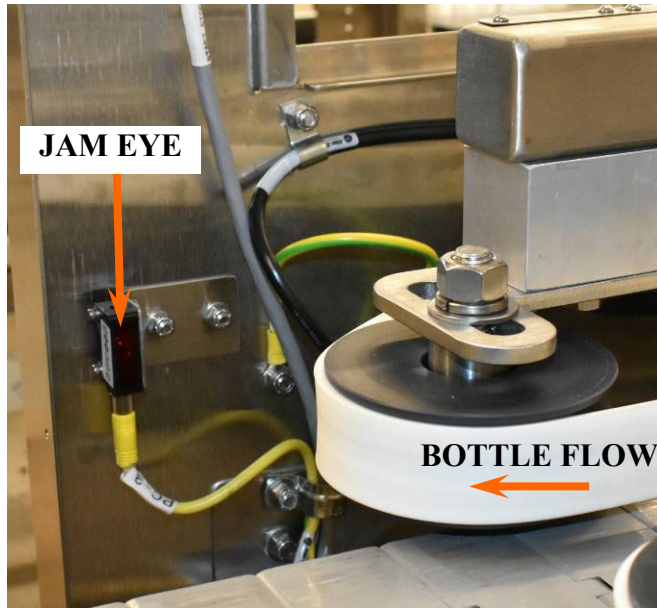
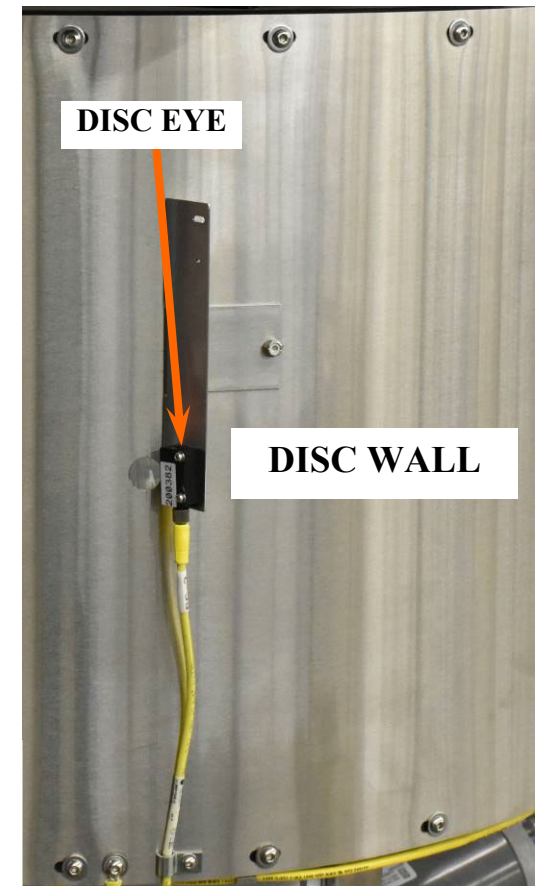
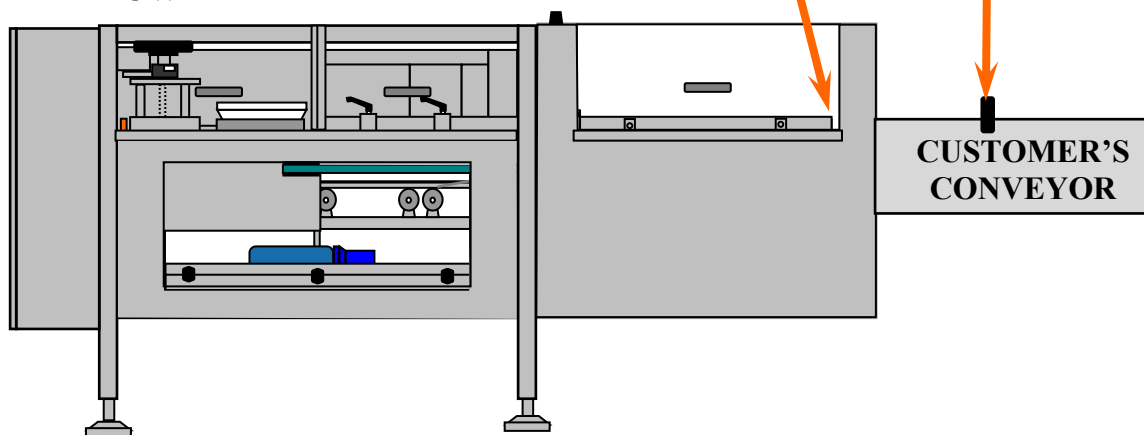


PHOTO EYE REFERENCE	
FIGURE 10E	
PHOTO EYE	PART NUMBER
DISC EYE	200384
JAM EYE	200384
DOWN STREAM BACK-UP EYE	200382

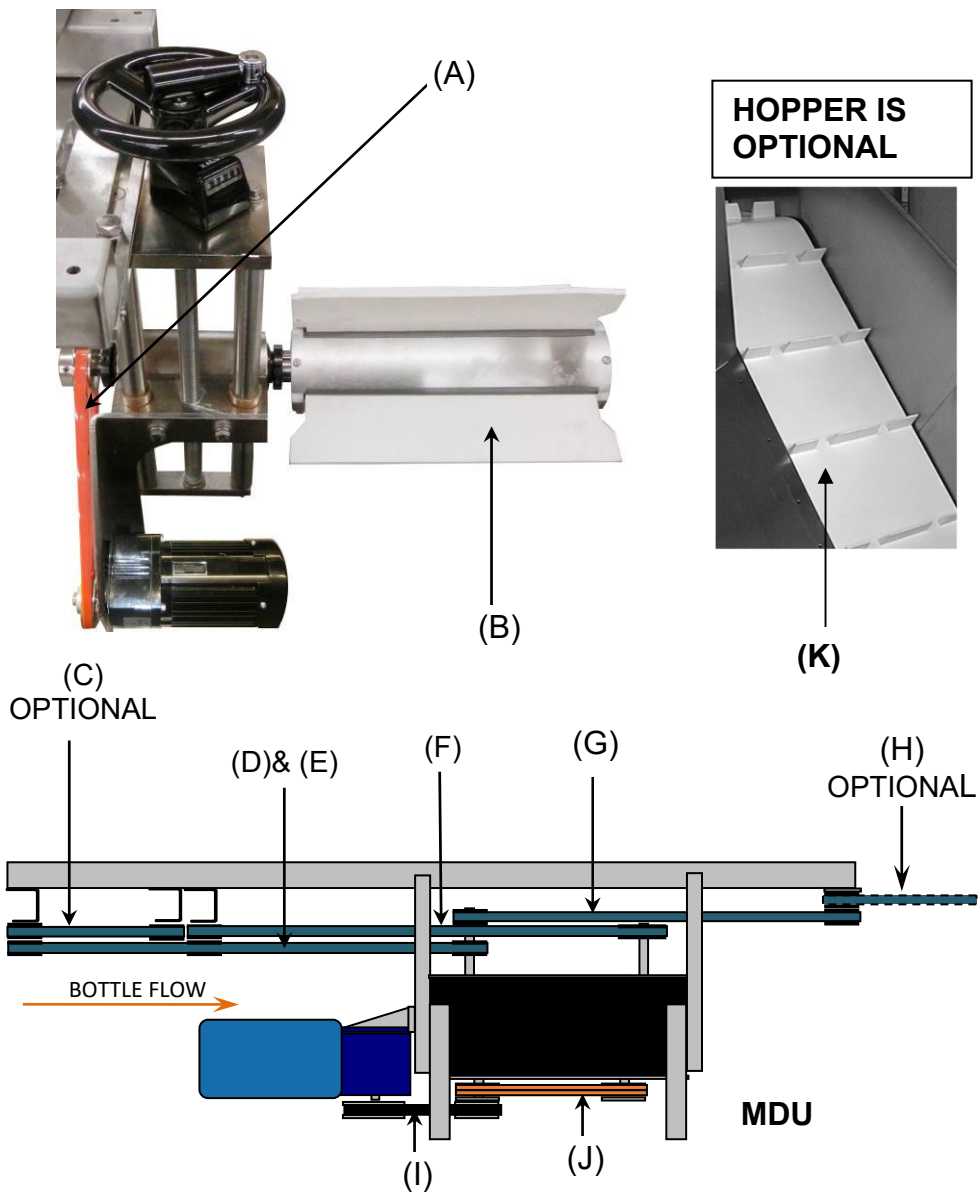
**JAM EYE
VIEW OF THE EXIT END OF THE MACHINE**

DOWN STREAM BACK-UP EYE

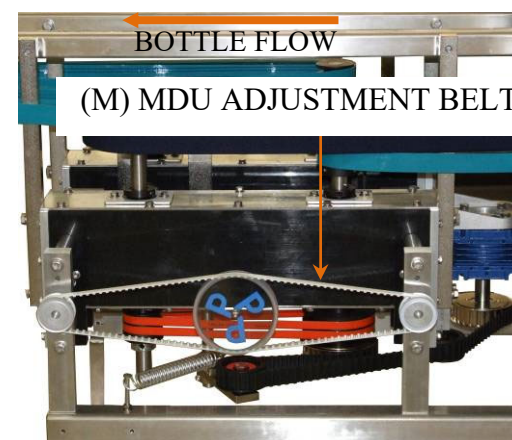
BOTTLE FLOW



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

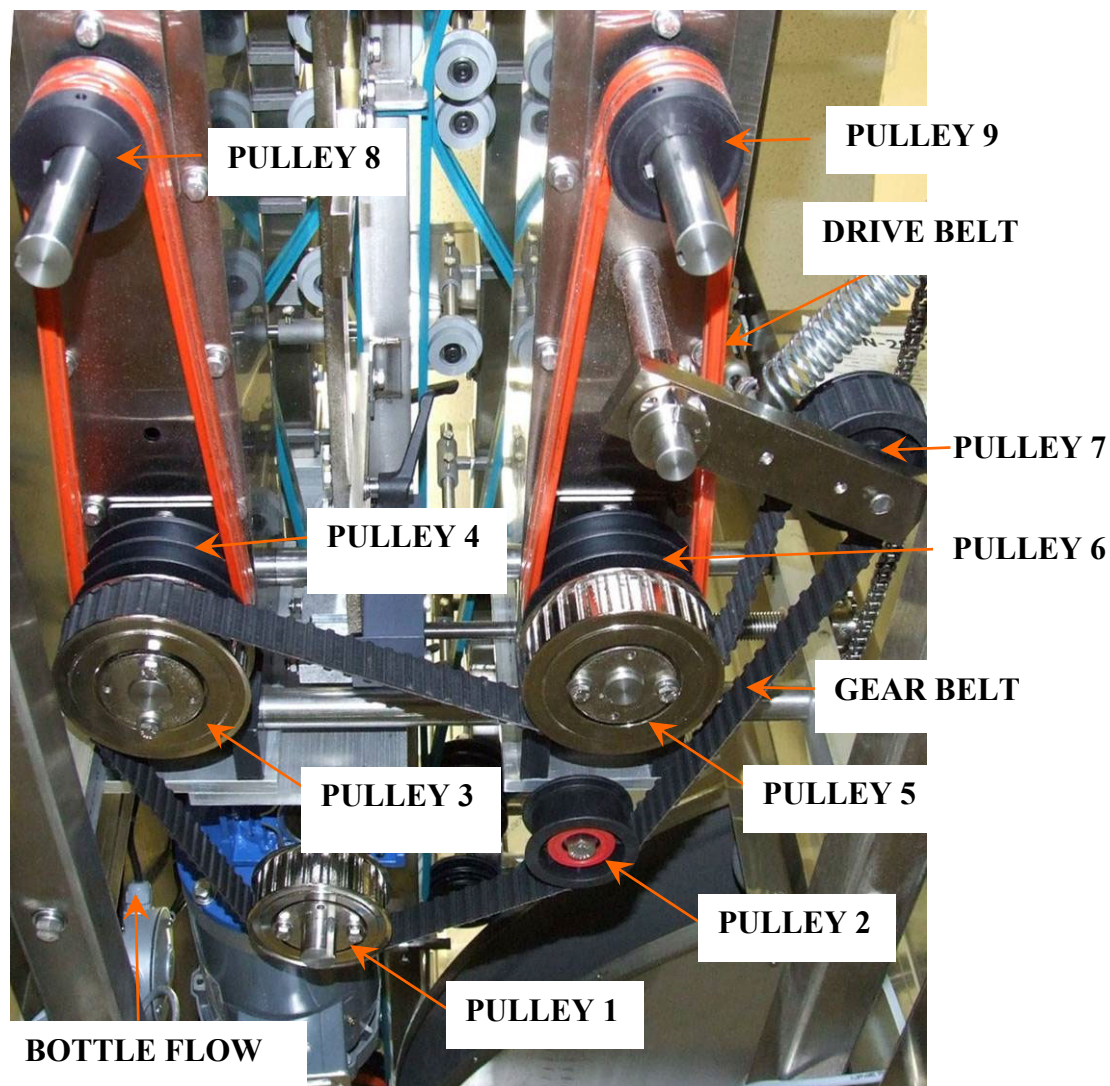


BELT DOCUMENTATION		
FIGURE 11B		
BELT NAME	BELT TYPE	PART NO.
(A) ROTARY BUMPER BELT	SINGLE A	35954
(B) ROTARY BUMPER BLADES	WHITE	34886
(C) UPPER INFEED BELT (OPERATOR'S SIDE) OPTIONAL	N/A	N/A
(D) LOWER INFEED BELT (OPERATOR'S SIDE)	TWIN A	35402
(E) INFEED BELT (NON-OPERATOR'S SIDE)	TWIN A	35403
(F) HIGH SPEED BELT	TWIN A WHITE	300754
(G) EXIT	TWIN A WHITE	300752
(H) SLOW SPEED DISCHARGE	N/A	N/A
(I) GEAR BELT	D660H100	31191
(J) DRIVE BELT	SINGLE A	35536
(K) HOPPER ELEVATOR BELT	2" CLEAT	46984
(L) DISC DRIVE BELT	A40	32556
(M) MDU ADJUSTMENT BELT	473L050	38546



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

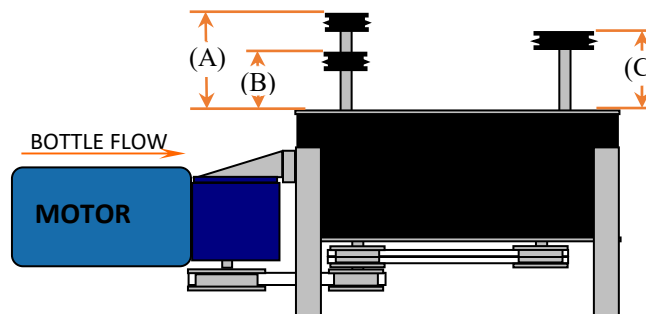
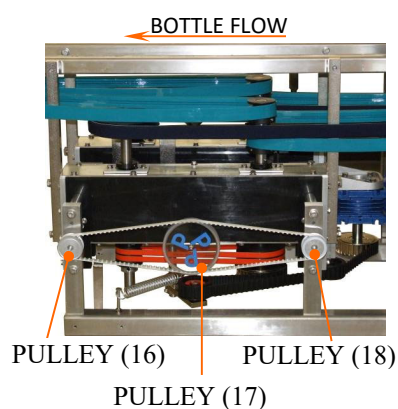
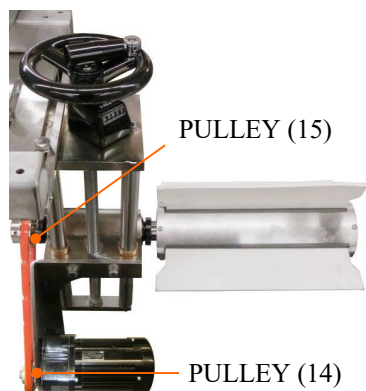
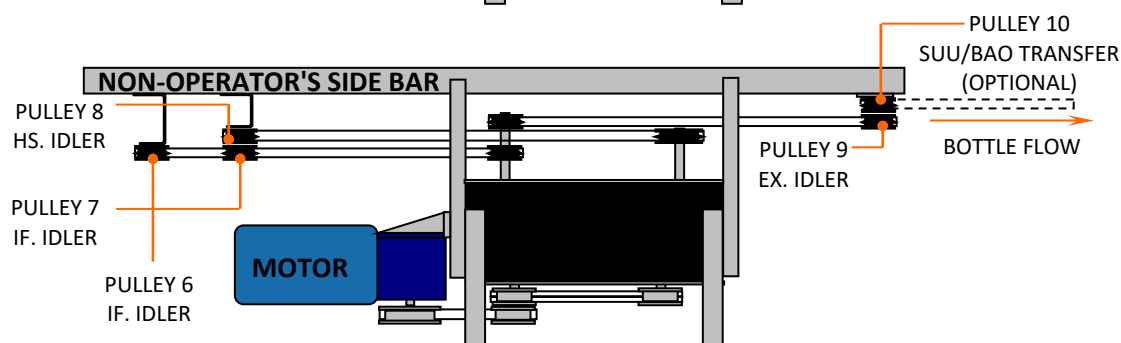
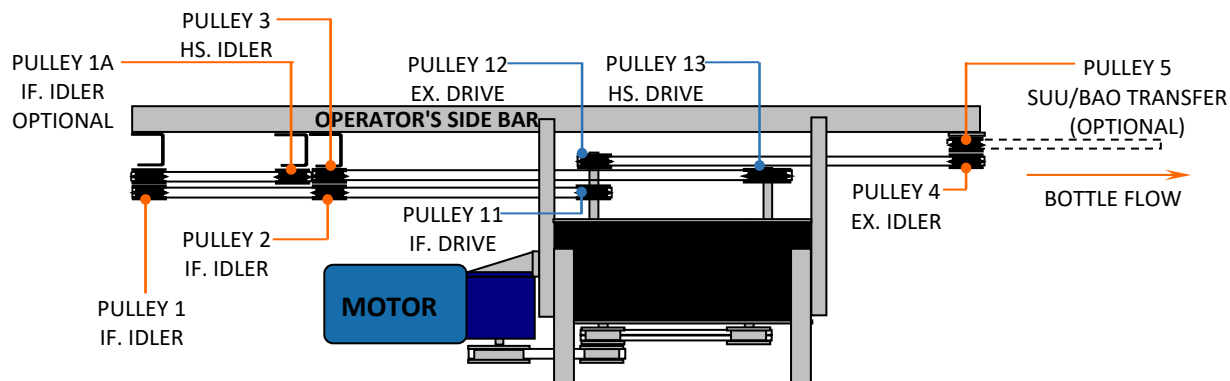
DRIVE BELT RUN (FIGURE 12) **VIEWED FROM UNDERNEATH THE MACHINE**



DRIVE PULLEY LAYOUT PAGE		
FIGURE 12		
PULLEY NAME	DESC.	PART NO.
PULLEY(1)	24HH100	30778
PULLEYS (2)&(7)	IDLER	34656
PULLEYS (3)&(5)	28HH100	30781
PULLEYS (4)&(6)	2AK46	36810
PULLEYS (8)&(9)	2AK25	36806
GEAR BELT	D660H100	31191
DRIVE BELT	SINGLE A	35536



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

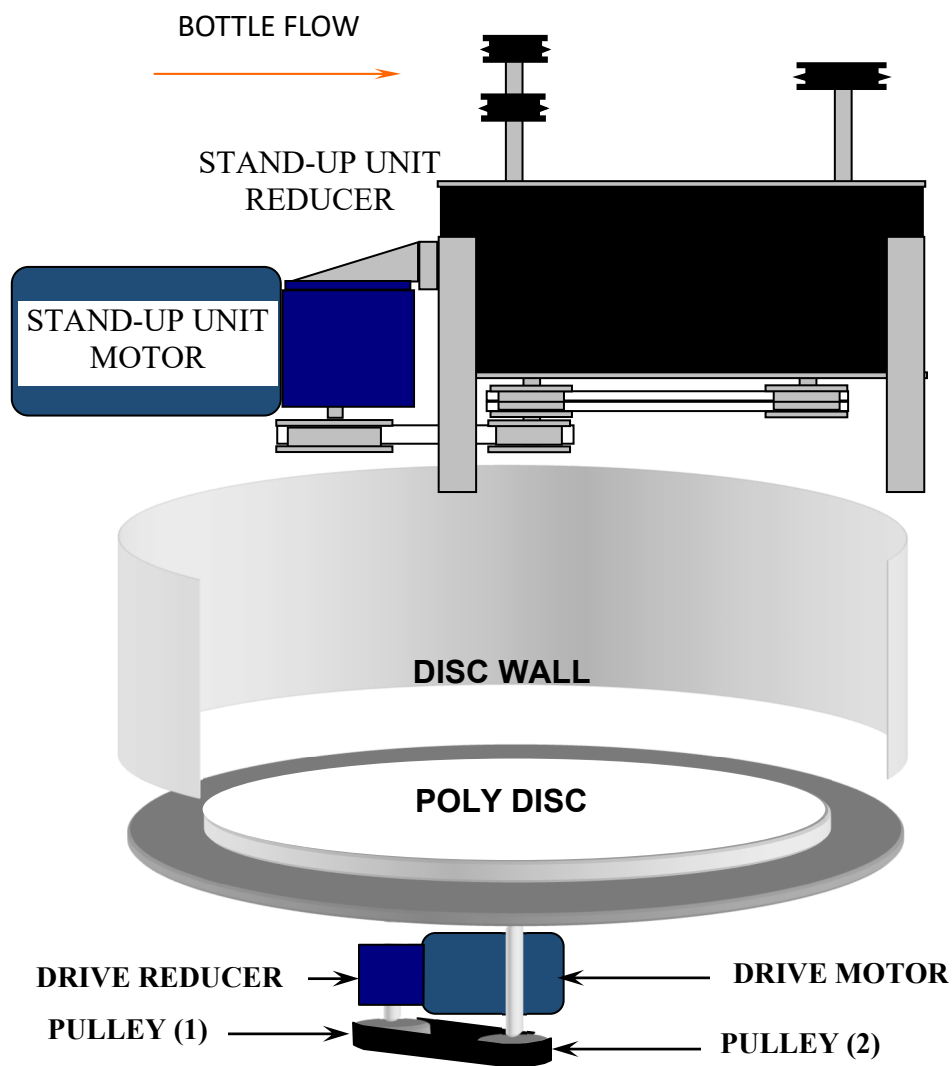


MAIN PULLEY PAGE		
NOTE: THE SSD & POWER RAMP OPTIONS ARE DOCUMENTED ON SEPARATE PAGES.		
FIGURE 13A		
PULLEY NAME	DESC.	PART NO.
OPERATOR'S SIDE TOP BAR		
PULLEY(1)	2AK34	36845
PULLEY(1A)	N/A	N/A
PULLEY(2)	2AK34	36845
PULLEY(3)	2AK34	36845
PULLEY(4)	2AK34	36845
PULLEY(5)	N/A	N/A
NON-OPERATOR'S SIDE TOP BAR		
PULLEY(6)	2AK34	36845
PULLEY(7)	2AK34	36845
PULLEY(8)	2AK34	36845
PULLEY(9)	2AK34	36845
PULLEY(10)	N/A	N/A
TOP BAR DRIVE PULLEYS		
PULLEY(11)	2AK25	36806
PULLEY(12)	2AK39	30784
PULLEY(13)	2AK61	36786
ROTARY BUMPER		
PULLEY(14)	AK30	30790
PULLEY(15)	AK25	30660
MDU		
PULLEY(16)	16L050	24886
PULLEY(17)	TENS.	38560
PULLEY(18)	16L050	24886

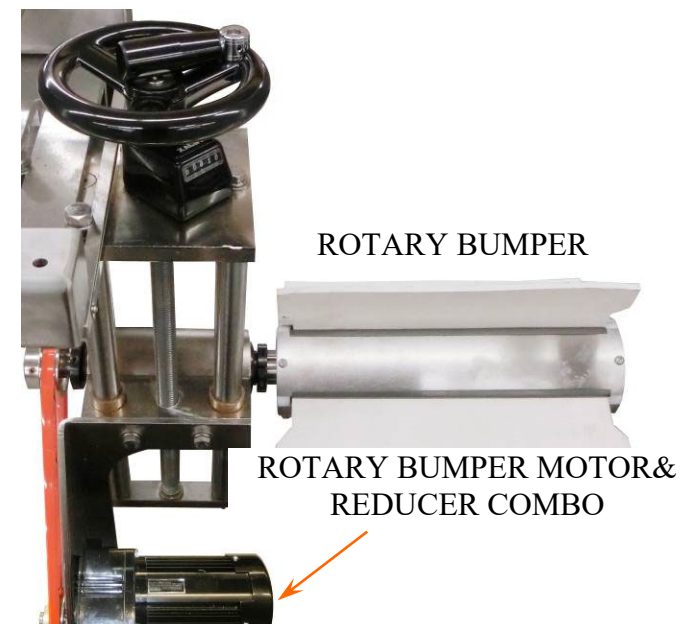


MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

MDU PULLEY HEIGHTS		
FIGURE 13A		
A	B	C
6 3/8"	3 1/2"	4 7/8"



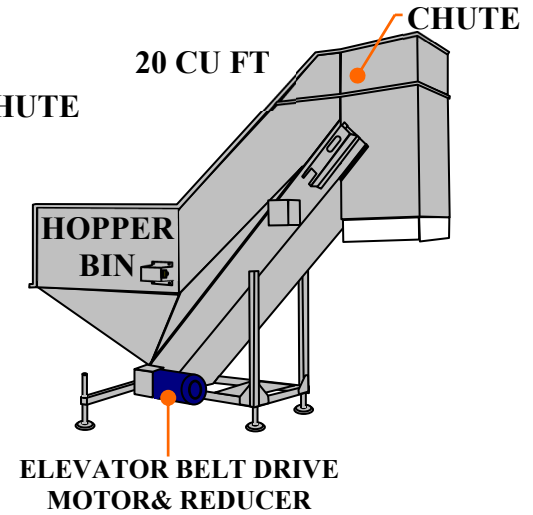
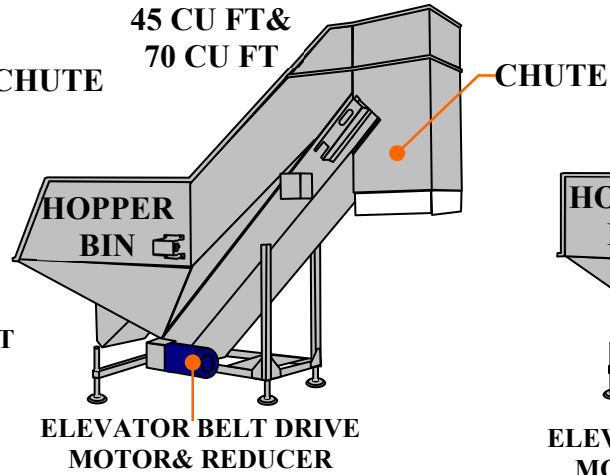
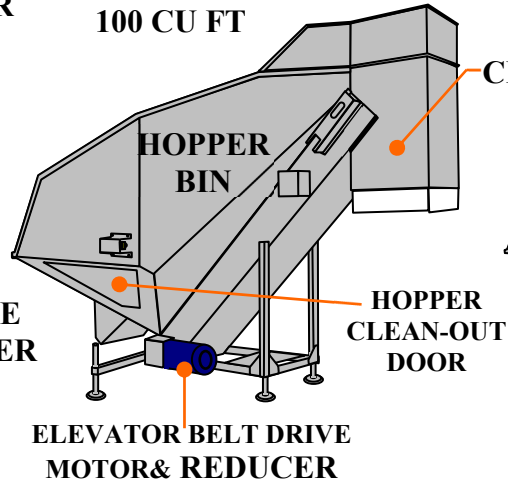
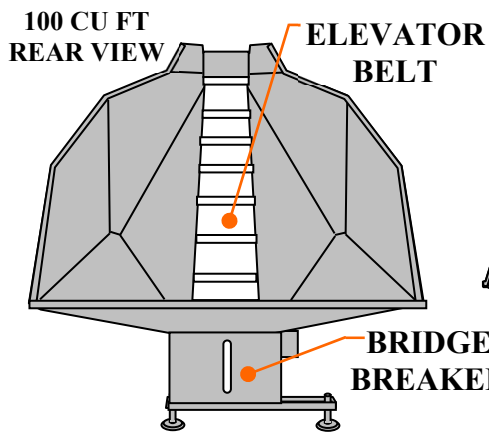
MOTOR DRIVE PAGE		
FIGURE 13B		
PULLEY NAME	DESC.	PART NO.
STAND-UP UNIT MOTOR	1 HP	44507
STAND-UP UNIT REDUCER	30:1	44093
DISC DRIVE MOTOR	1 HP	44507
DISC DRIVE REDUCER	60:1	45220
PULLEY (1)	2AK34X1	30783
PULLEY (2)	2TB64	32156
ROTARY BUMPER MOTOR	3/8 HP	46802
ROTARY BUMPER REDUCER		



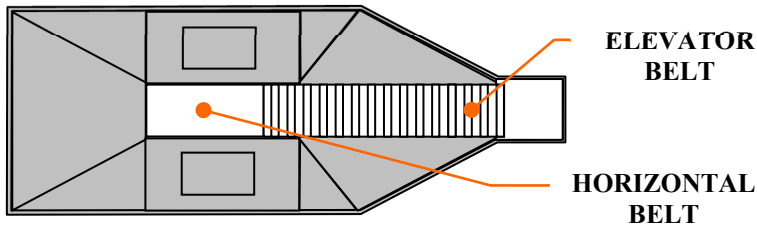
** NOTE: THE LOCATION OF MOTOR & REDUCER MAY BE DIFFERENT FROM THE FIGURE SHOWN ABOVE.*



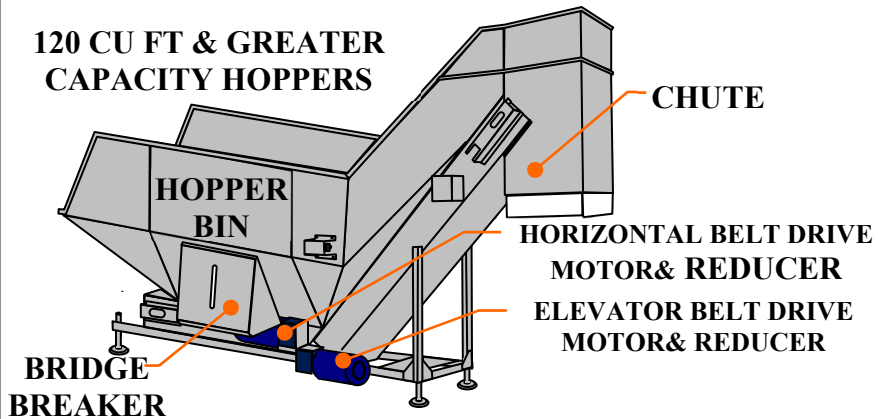
MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21



120 CU FT & GREATER CAPACITY HOPPERS (TOP VIEW)



120 CU FT & GREATER CAPACITY HOPPERS



HOPPER SPECIFICATION PAGE

FEATURE	"YES" OR "NO"	DIMENSION, LOCATION OR PART #
A) HOPPER SIZE	YES	45 CU FT
B) CHUTE	YES	
C) COVERS	YES	
D) ELEVATOR BELT	YES	
E) HORIZONTAL BELT	NO	
F) CLEAN-OUT DOOR (LOCATION)	NO	
G) BRIDGE BREAKER (LOCATION)	NO	
H) EXTENDED BIN (EXTENDED FOR HEIGHT)	NO	
I) EXTENDED BIN (EXTENDED FOR LENGTH)	NO	
J) FRAME EXTENSION	NO	
K) DROP LOAD GATE	NO	
L) BAFFLE IN THE CHUTE	NO	

MOTOR & REDUCER INFORMATION

MOTOR OR REDUCER	DESCRIPTION	PART #
ELEVATOR DRIVE MOTOR	1 HP	400579
ELEVATOR REDUCER	60:1	44510
HORIZONTAL DRIVE MOTOR	N/A	N/A
HORIZONTAL REDUCER	N/A	N/A

MACHINE S/N:	4837
CUSTOMER:	HOME CHEF
DATE:	2/4/21

HOOK ASSEMBLY PARTS IDENTIFICATION

NOTE: NOT ALL COMPONENTS SHOWN ON THIS PAGE ARE ON THE RECOMMENDED SPARES LIST

ROTARY ACTUATOR /HOOK ASSEMBLY
PART NO. 33363

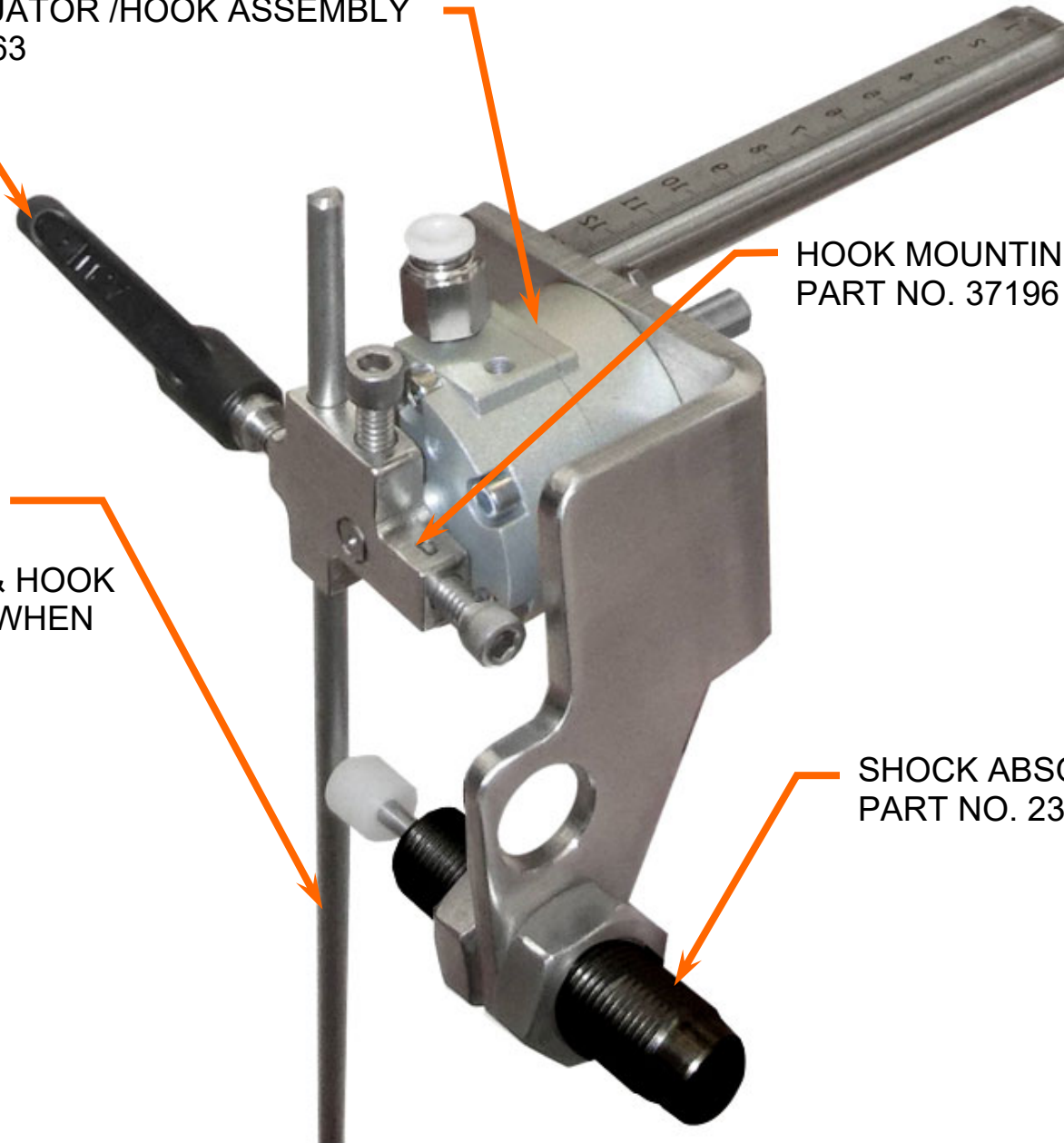
LEVER 1/4-20
PART NO. 23638

HOOK; GENERIC
PART NO. 33674

NOTE: SERIAL NUMBER & HOOK
LETTER ARE REQUIRED WHEN
ORDERING HOOKS

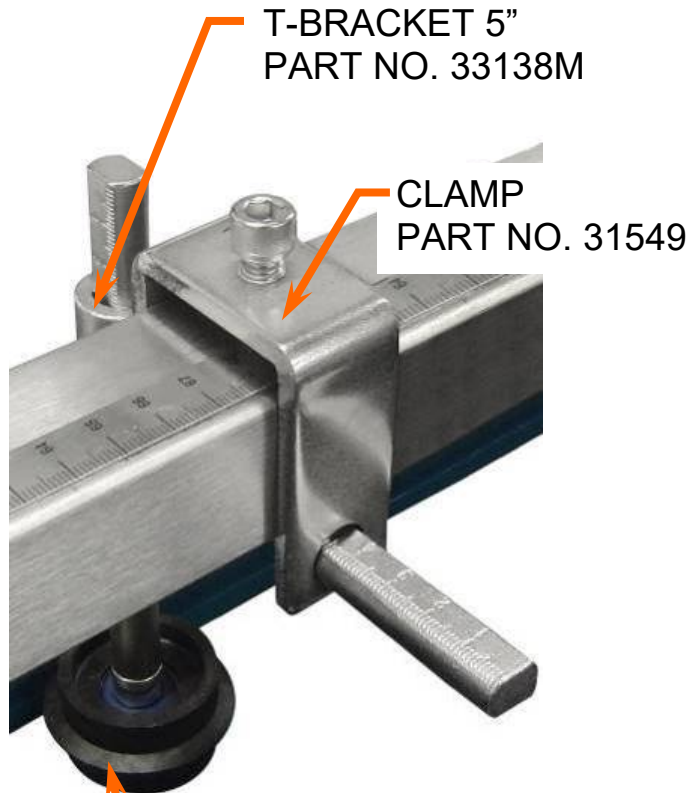
HOOK MOUNTING HUB
PART NO. 37196

SHOCK ABSORBER WITH PAD
PART NO. 23199



TOP BAR COMPONENT ASSEMBLIES (PAGE 1)

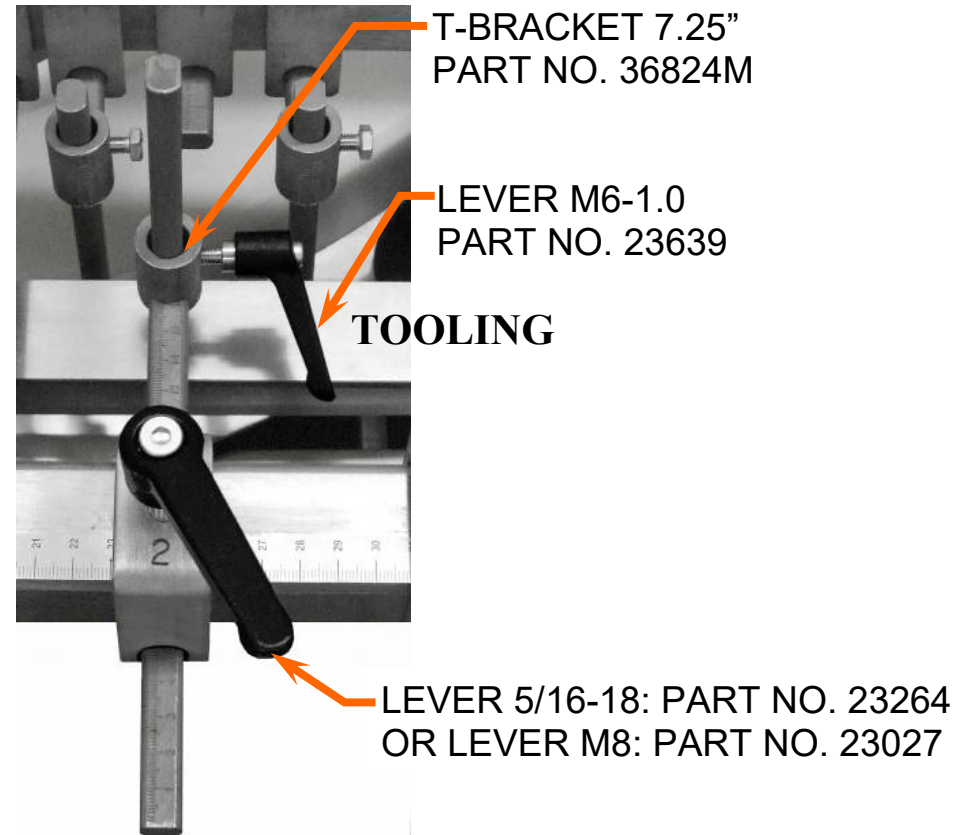
**NOTE: NOT ALL COMPONENTS SHOWN ON THIS PAGE ARE ON THE RECOMMENDED SPARES LIST
SOME MACHINES USE SCREWS INSTEAD OF LEVERS IN MOST PLACES**



T-BRACKET 5"
PART NO. 33138M

CLAMP
PART NO. 31549

ROLLER W/BEARING ON TOP BAR ASSEMBLY
PACE PART NUMBER: 300232



T-BRACKET 7.25"
PART NO. 36824M

LEVER M6-1.0
PART NO. 23639

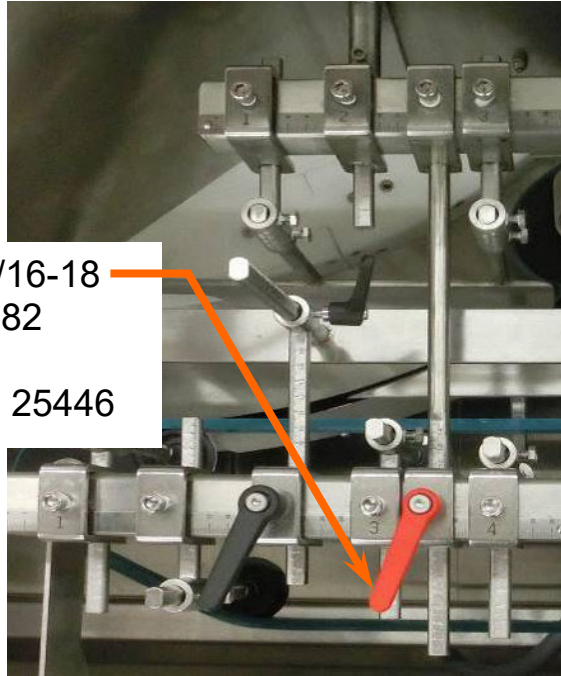
TOOLING

LEVER 5/16-18: PART NO. 23264
OR LEVER M8: PART NO. 23027

TOP BAR COMPONENT ASSEMBLIES (PAGE 2)

NOTE: NOT ALL COMPONENTS SHOWN ON THIS PAGE ARE ON THE RECOMMENDED SPARES LIST
SOME MACHINES USE SCREWS INSTEAD OF LEVERS IN MOST PLACES

RED LEVER 5/16-18
PART NO. 23582
OR
M8: PART NO. 25446



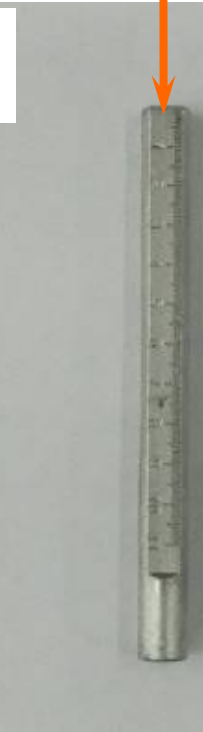
BACK-UP ROLLER W/BEARING (OPTIONAL)
PART NO. 23594



4" SHAFT
NO. 24552



5 1/2" SHAFT
NO. 24553



7" SHAFT
NO. 24554



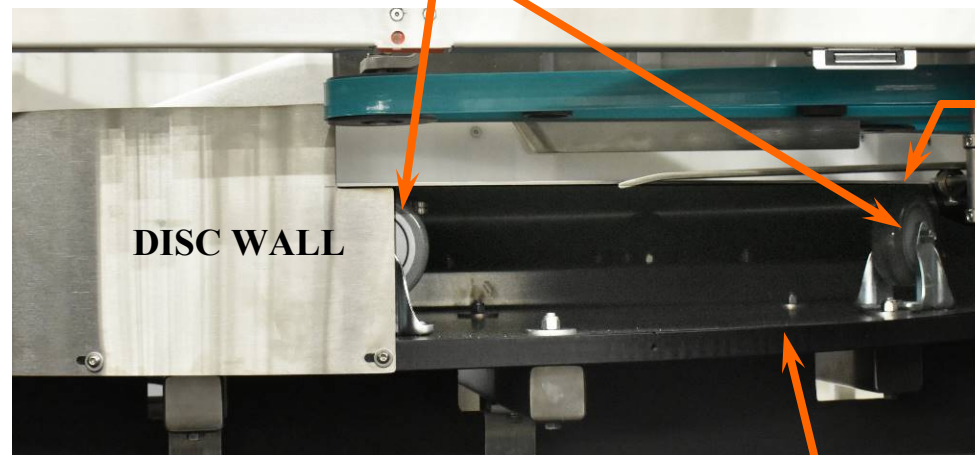
MACHINE PARTS IDENTIFICATION (PAGE 3)

NOTE: NOT ALL COMPONENTS SHOWN ON THIS PAGE ARE ON THE RECOMMENDED SPARES LIST



HINGE-PART NUMBER 22930

CASTERS-PART NUMBER 33897



DISC WALL

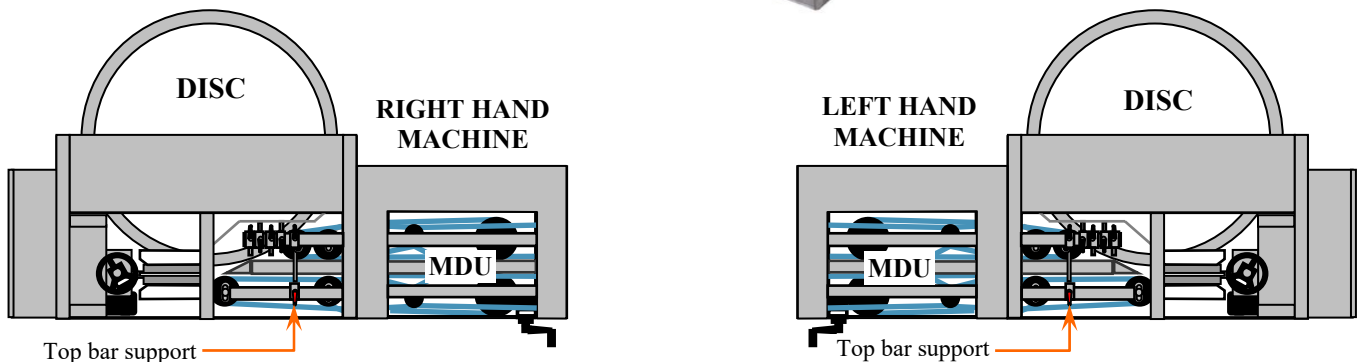
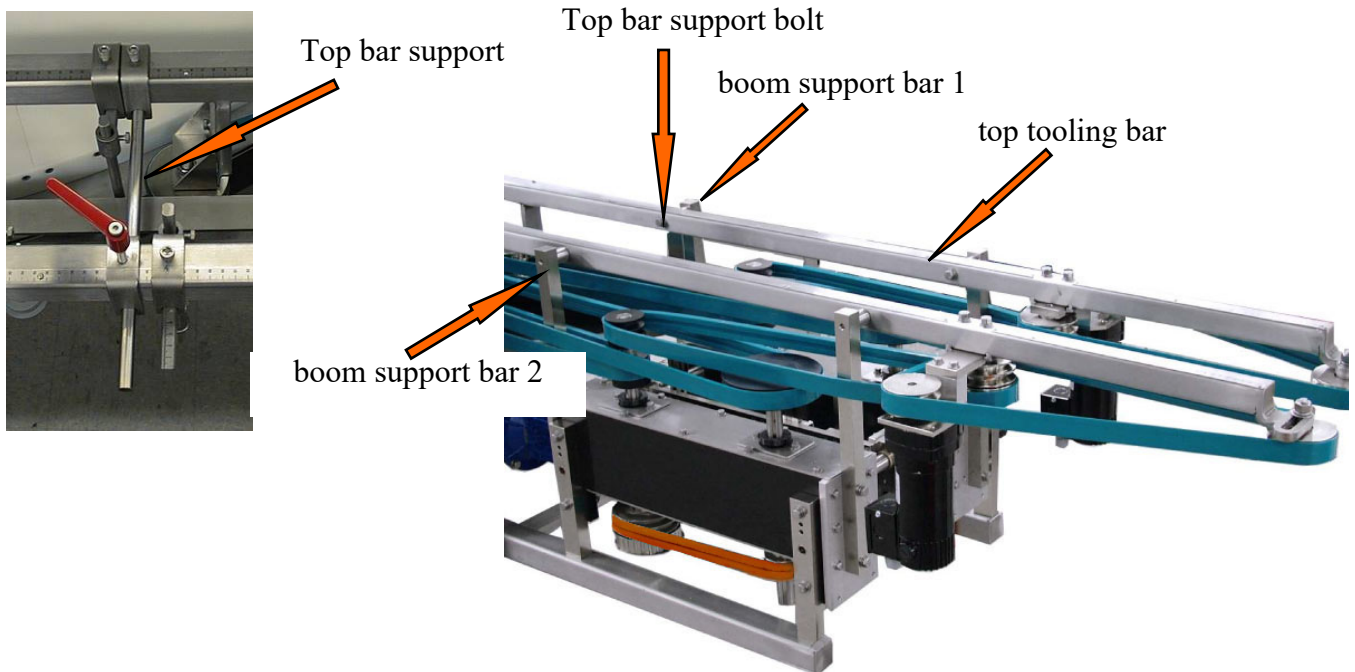
ROTATING DISC

FIXED DISC

PARTS& MAINTENANCE
SECTION III- PART 2

BOTTLE PROCESSING BELT REPLACEMENT
AND MAINTENANCE PROCEDURES

BOTTLE PROCESSING BELT INSTALLATION INSTRUCTIONS (INFEED AND HIGH SPEED BELTS)



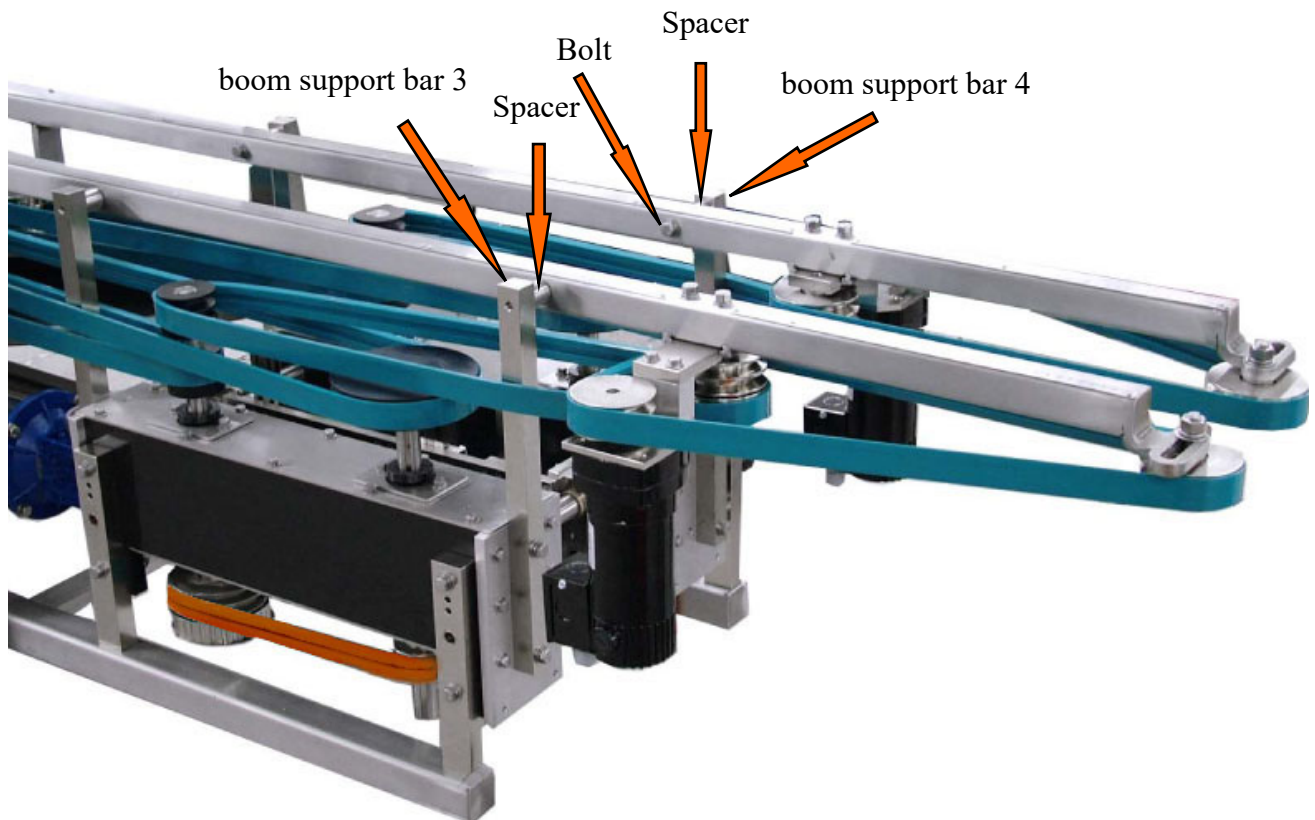
NOTE: NEVER REMOVE MORE THAN 1 TOP BAR MOUNTING BOLT AT A TIME.

In order to easily change the infeed and high speed (twin-A) belting on the Pace machine, follow these steps:

- (1) Disconnect power from Pace machine.
- (2) Open 41" cabinet door to reveal operator's side of stand up unit.
- (3) The ½" top bar support rod must be intact and tightened before removing top bar mounting bolts.
- (4) Remove the 3/8-16" (M10-METRIC) bolt and spacer between the boom support bar and the top tooling bar.
- (5) Slide out the old belt through the gap that is formed between boom support bar and the top tooling bar.
- (6) Slide in new belt(s) and install it on the pulleys.
- (7) Reinstall the spacer and bolt between the boom support bar and the top tooling bar.

BOTTLE PROCESSING BELT INSTALLATION INSTRUCTIONS (EXIT BELTS)

NOTE: NEVER REMOVE MORE THAN 1 TOP BAR MOUNTING BOLT AT A TIME.



In order to easily change the exit (twin-A) belting on the Pace machine, follow these steps:

- (1) Disconnect power from Pace machine.
- (2) Open 41" cabinet door to reveal operator's side of stand up unit.
- (3) The ½" top bar support rod (see previous page for location) must be intact and tightened before removing top bar mounting bolts.
- (4) Remove the 3/8-16" (M10-METRIC) bolt and rectangular spacer located on the boom support bar.
- (5) Slide out the old belt through the gap that is formed between the boom support bar and the tooling bar.
- (6) Slide in the new belt(s) and install it on the pulleys.
- (7) Reinstall the rectangular spacer and bolt back onto the boom support bar.

MAINTENANCE

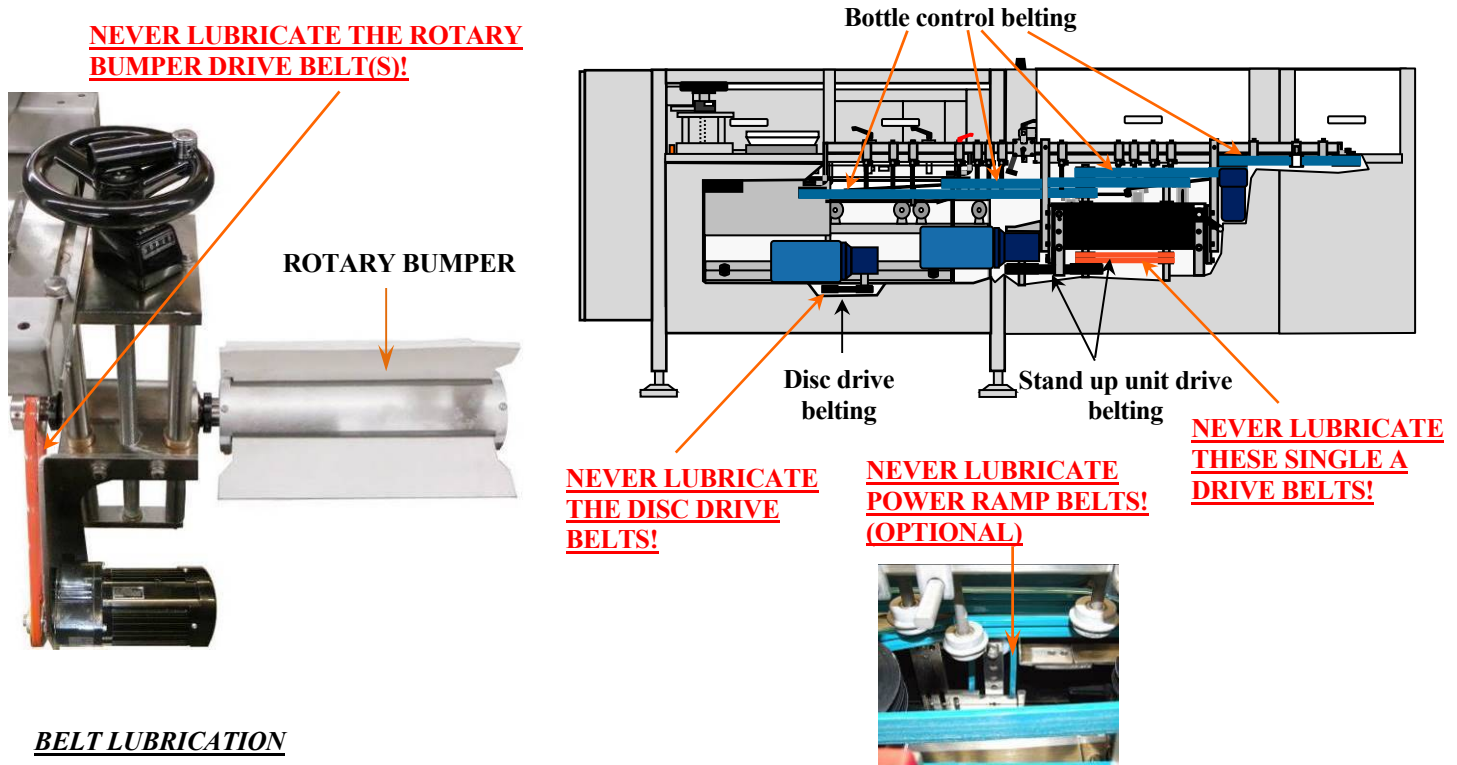
LUBRICATION OF BOTTLE PROCESSING BELTS

Warning

Before performing any maintenance functions on machinery, remove all power and use proper lockout/tagout procedures.

Note:

Your machine may have more or less belts than the diagram shown below depending upon your application.



BELT LUBRICATION

The lubrication of the bottle control belting (see figure above) is essential for proper performance. Belts that are not lubricated will walk or jump off of the drive pulleys and guide rollers. This will cause poor performance, jams, and premature wear to the belting. A thin film of F.D.A. approved food grade grease is applied to the back of Twin-A or grooved belts only. This film reduces friction related heat build up and prevents the belt from walking off the drive pulleys during normal operations.



The recommended way to apply this grease is simple. Apply a small amount to your index finger. Only enough to cover the tip of the finger about ¼" thick is necessary. Spread the grease using your finger to one section of the grooved side of the belt spreading it out so it no longer is visible. One application only is necessary for shorter belts. Two applications may be needed on the longer belts. The customer need is determined by production requirements.

The end result will be a very thin film on the V-groove section of the belt. Belts should be lubricated as needed. Never over grease and never lubricate the bottle contact side of the belts.

Never lubricate the set of Single-A drive belts or the Rotary Bumper Drive Belts! Never lubricate Power Ramp belts (optional). Lubricate only the bottle control belting.

"LUBRIPLATE SUPER FML-2" PACE PART # 32610 IS RECOMMENDED FOR BELT LUBRICATION"

BOTTLE PROCESSING BELT CLEANING

Along with proper belt tension, correct belt maintenance is important to obtain the longest life and best performance from these belts.

URETHANE TWIN A BELTS ONLY

Over time the bottle control belting will become dirty and need to be cleaned. To do this without damaging the texture of the belt, use a mild detergent with water for best results. A sponge or fine scotch-bright pad will also increase the cleaning effectiveness. Be sure belts are completely dry before operating in production. (Never use any type of alcohol or other petroleum product to clean the urethane belts.)

URETHANE TWIN A BELTS & SOFT CLOTH COVERED BELTS

Warning

Check to ensure that the soft cloth covering of the belting will not rub against any component of the machine. Top Tooling must be tightened before machine start-up.

REDUCER LUBRICATION

Lubrication requirements are minimal.

SEALED REDUCERS (MOTOVARIO & 90 DEGREE CROWN DRIVES):

- * These reducers are non vented, filled with synthetic lubricants & require no lubrication.

ELECTRICAL

- * For customers with DC Motors only:
Inspect DC Motor Brushes for wear every 4 months or 1000 hours of operation.

PARTS& MAINTENANCE
SECTION III- PART 3

DISC ASSEMBLY MAINTENANCE PROCEDURES
& GENERAL MACHINE CLEANING

MAINTENANCE (continued)

DISC ASSEMBLY CLEANING

Warning

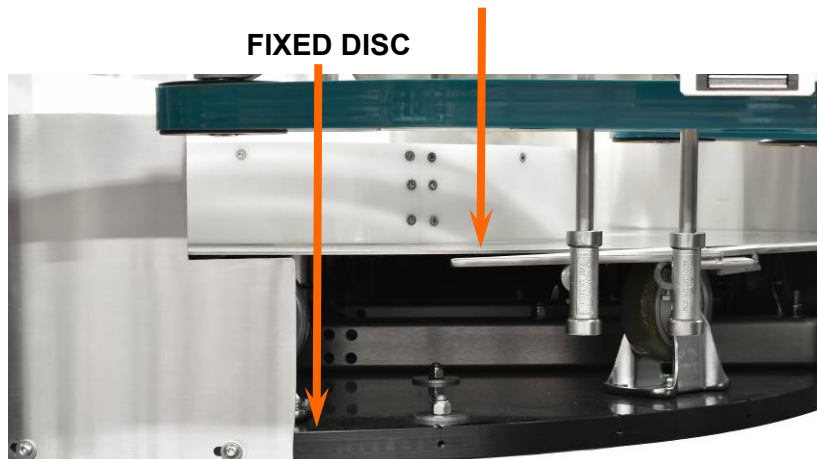
Proper Housekeeping is paramount to maintain a safe & efficient machine. All areas of the machine must be kept free of foreign matter. The area between the rotating stainless steel disc and the fixed non-rotating disc that it is mounted upon can be a point where unseen debris may collect. Access to clean this area with a vacuum hose can be found on the operator side of the machine. Cleaning of this area shall be performed at least once a month in order to prevent a build up of debris and potentially unsafe conditions.



VIEW SHOWN BELOW

STAINLESS STEEL ROTATING DISC

FIXED DISC



NOTE: SOME MACHINES MAY HAVE ADDITIONAL OR DIFFERENT ACCESS POINTS.

MAINTENANCE (continued)

DISC ASSEMBLY CLEANING

CLEAN ROTATING POLY DISC WITH A NON-FLAMMABLE CLEANING/ STERILIZATION SOLUTION.



GENERAL MACHINE CLEANING

**CLEAN CABINETS WITH
STAINLESS STEEL CLEANER.**

**CLEAN LEXAN WINDOWS WITH
GLASS CLEANER.**

VACUUM GUARDING UNDERNEATH



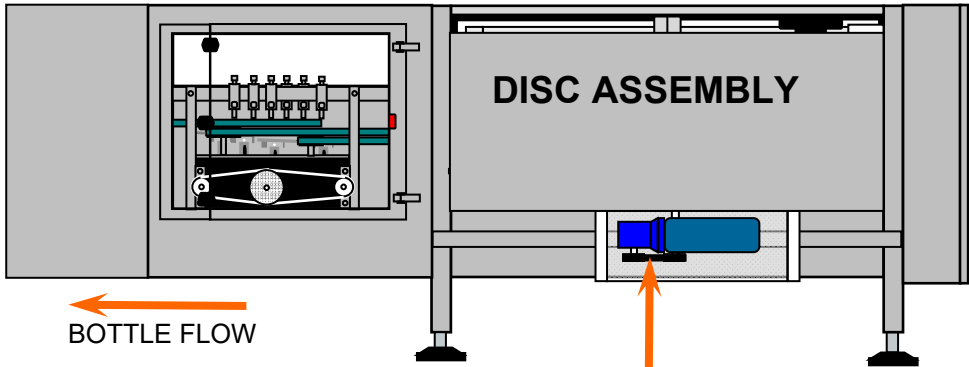
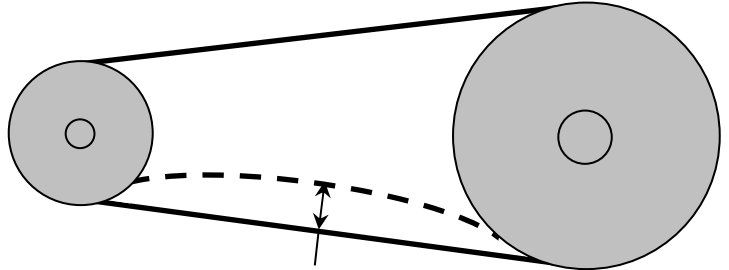
ALL OUTSIDE STAINLESS STEEL CABINETS: CLEAN WITH STAINLESS STEEL CLEANER
ALL LEXAN WINDOWS, GUARDS OR DOORS: CLEAN WITH GLASS CLEANER
VACUUM GUARDING UNDERNEATH THE MACHINES WHERE DEBRIS MIGHT COLLECT.

PARTS& MAINTENANCE
SECTION III- PART 4

MAINTENANCE TIME TABLE

MAINTENANCE TIME TABLE

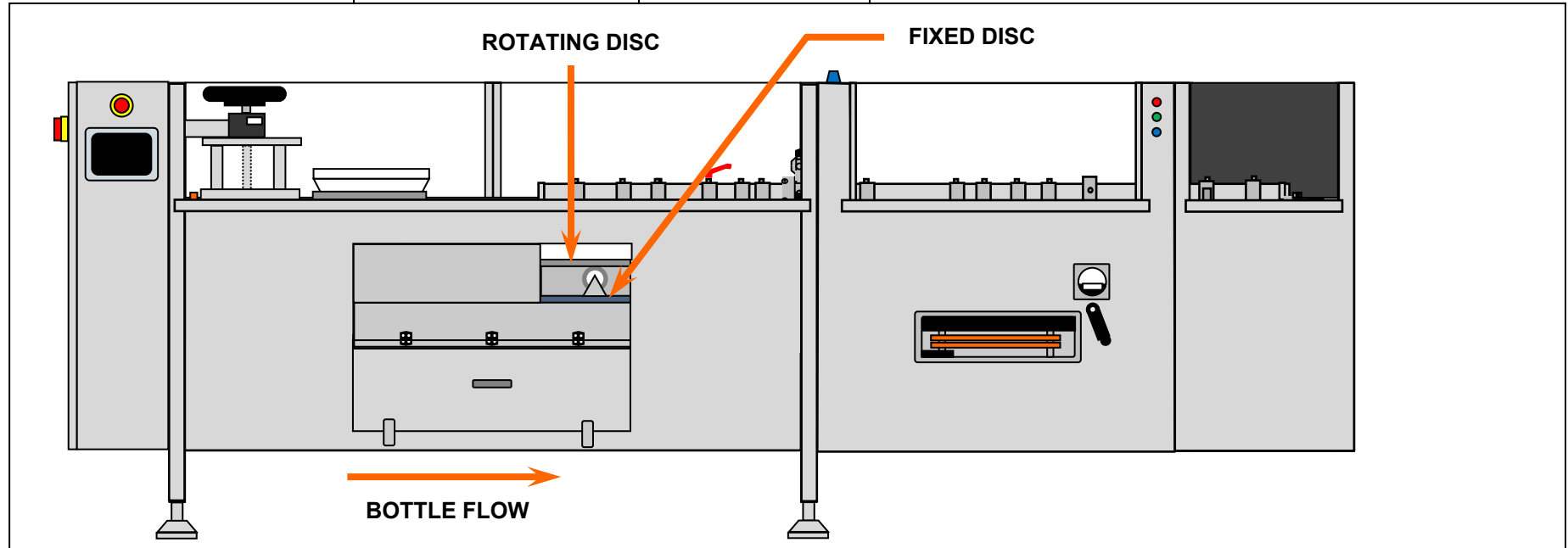
NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

AREA	PART	FREQUENCY	ACTION REQUIRED
1) UNDERNEATH THE DISC	DISC DRIVE BELTS (SEE FIGURE BELOW)	400 HRS	<p>CHECK THE DISC DRIVE BELT FOR WEAR.</p> <p>IF THE DISC DRIVE BELT IS WORN OUT, REPLACE THE BELT.</p> <p>CHECK THE DISC DRIVE BELT FOR PROPER TENSION.</p> <p>READJUST THE TENSION IF POSSIBLE. IF NOT POSSIBLE REPLACE THE BELT. THE BELT SHOULD NOT DEFLECT IN CENTER MORE THAN THE SPECIFICATION GIVEN IN THE FIGURE BELOW.</p>
<p style="text-align: center;">REAR VIEW OF THE UNSCRAMBLER</p>  <p style="text-align: center;">LOCATION OF DISC DRIVE BELTS AND BEARINGS</p>			 <p style="text-align: center;">1.7 CM @ 8 KG MAX. ALLOWABLE DEFLECTION</p> <p>CHECK THE DISC DRIVE BELT FOR CLEANLINESS.</p> <p>IF THE DISC DRIVE BELT HAS ONLY DIRT ON IT, USE A DRY WIPE TO REMOVE THE DIRT.</p>

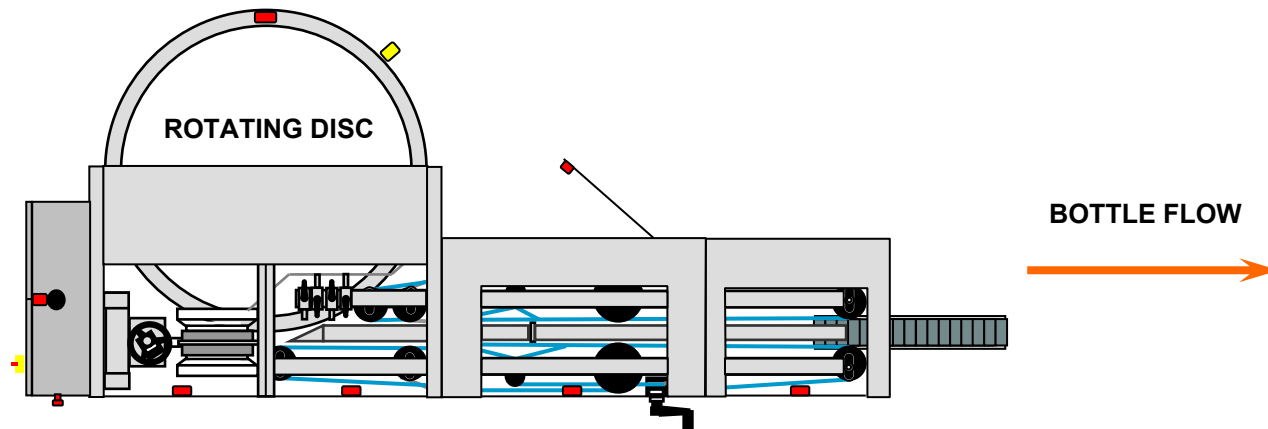
MAINTENANCE TIME TABLE

NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

AREA	PART	FREQUENCY	ACTION REQUIRED
2) UNDERNEATH ROTATING DISC	UNDERNEATH ROTATING DISC	WEEKLY	CLEAN THE AREA BETWEEN THE ROTATING STAINLESS STEEL DISC AND THE FIXED NON-ROTATING DISC THAT IT IS MOUNTED UPON. USE A LONG NOZZLE VACUUM.

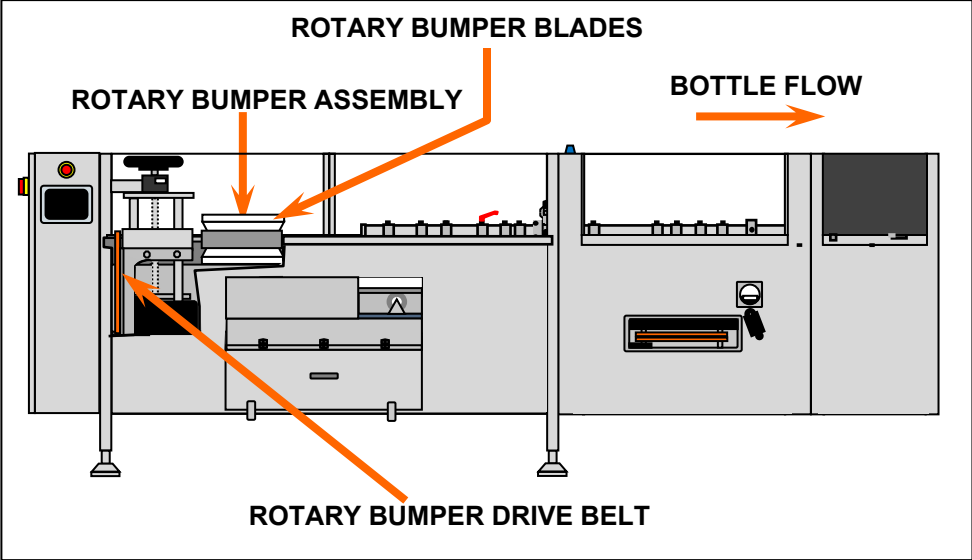


3) ROTATING STAINLESS DISC & PLASTIC MAIN DISC	ROTATING PLASTIC MAIN DISC	WEEKLY	CLEAN ROTATING PLASTIC MAIN DISC WITH A NON-FLAMMABLE CLEANING/STERILIZATION SOLUTION.
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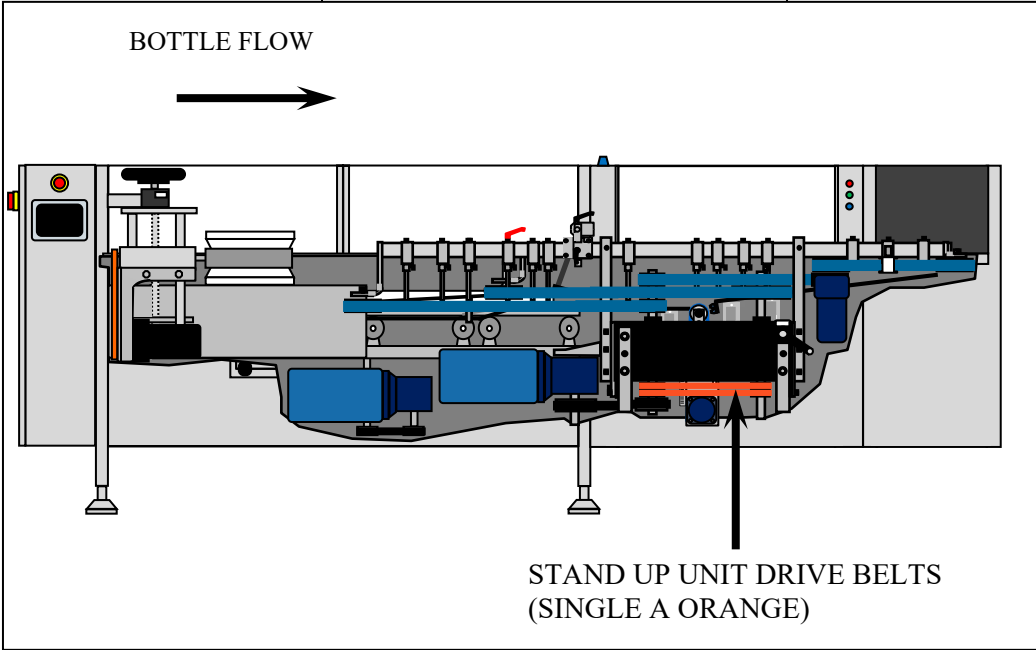
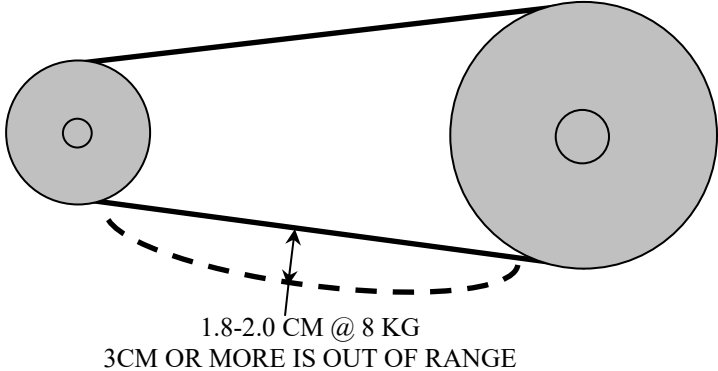
MAINTENANCE TIME TABLE

NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

AREA	PART	FREQUENCY	ACTION REQUIRED
4) ROTARY BUMPER	ROTARY BUMPER DRIVE BELT (SEE FIGURE BELOW)	WEEKLY	CHECK THE ROTARY BUMPER DRIVE BELT FOR WEAR. IF THE ROTARY BUMPER DRIVE BELT IS WORN OUT, REPLACE THE BELT.
			CHECK THE ROTARY BUMPER DRIVE BELT FOR PROPER TENSION. THE BELT SHOULD NOT DEFLECT IN CENTER. REPLACE THE BELT.
			CHECK THE ROTARY BUMPER DRIVE BELT FOR CLEANLINESS. FOR BEST RESULTS, CLEAN THE BELT WITH A MILD DETERGENT AND WATER. A SPONGE OR FINE SCOTCH-BRIGHT PAD WILL ALSO INCREASE THE CLEANING EFFECTIVENESS. BE SURE THAT THE BELTS ARE COMPLETELY DRY BEFORE OPERATING IN PRODUCTION. <i>(NEVER USE ANY TYPE OF ALCOHOL OR OTHER PETROLEUM PRODUCT TO CLEAN THE URETHANE BELTS.)</i>
5) ROTARY BUMPER	ROTARY BUMPER BLADES	WEEKLY	CHECK FOR DAMAGED OR MISSING ROTARY BUMPER BLADES (4 PIECES). REPLACE BLADES IF MISSING OR DAMAGED.

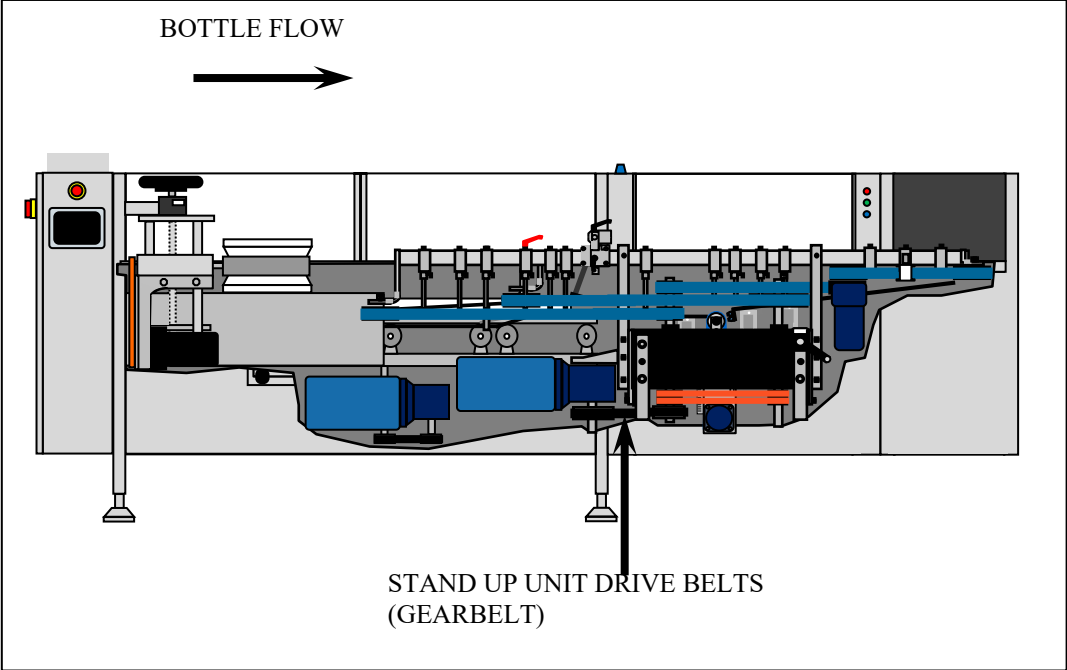
MAINTENANCE TIME TABLE

NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

AREA	PART	FREQUENCY	ACTION REQUIRED
6) STAND UP UNIT	STAND-UP UNIT DRIVE BELT (SINGLE A BELTS ONLY) (SEE FIGURE BELOW)	WEEKLY	<p>CHECK THE STAND-UP UNIT DRIVE BELT (SINGLE A) FOR WEAR.</p> <p>IF THE STAND-UP UNIT DRIVE BELT (SINGLE A) IS WORN OUT, REPLACE THE BELT.</p>
			<p>CHECK THE STAND-UP UNIT DRIVE BELT (SINGLE A) FOR PROPER TENSION. THE BELT SHOULD NOT DEFLECT IN CENTER MORE THAN THE SPECIFICATION GIVEN IN THE FIGURE BELOW.</p>  <p>REPLACE THE BELT IF NECESSARY.</p>
			<p>CHECK THE STAND-UP UNIT DRIVE BELT (SINGLE A) FOR CLEANLINESS.</p> <p>CLEAN THE BELT BY UTILIZING A MILD DETERGENT WITH WATER FOR BEST RESULTS. A SPONGE OR FINE SCOTCH-BRIGHT PAD WILL ALSO INCREASE THE CLEANING EFFECTIVENESS. BE SURE THAT THE BELTS ARE COMPLETELY DRY BEFORE OPERATING IN PRODUCTION.</p> <p>(NEVER USE ANY TYPE OF ALCOHOL OR OTHER PETROLEUM PRODUCT TO CLEAN THE URETHANE BELTS.)</p>

MAINTENANCE TIME TABLE

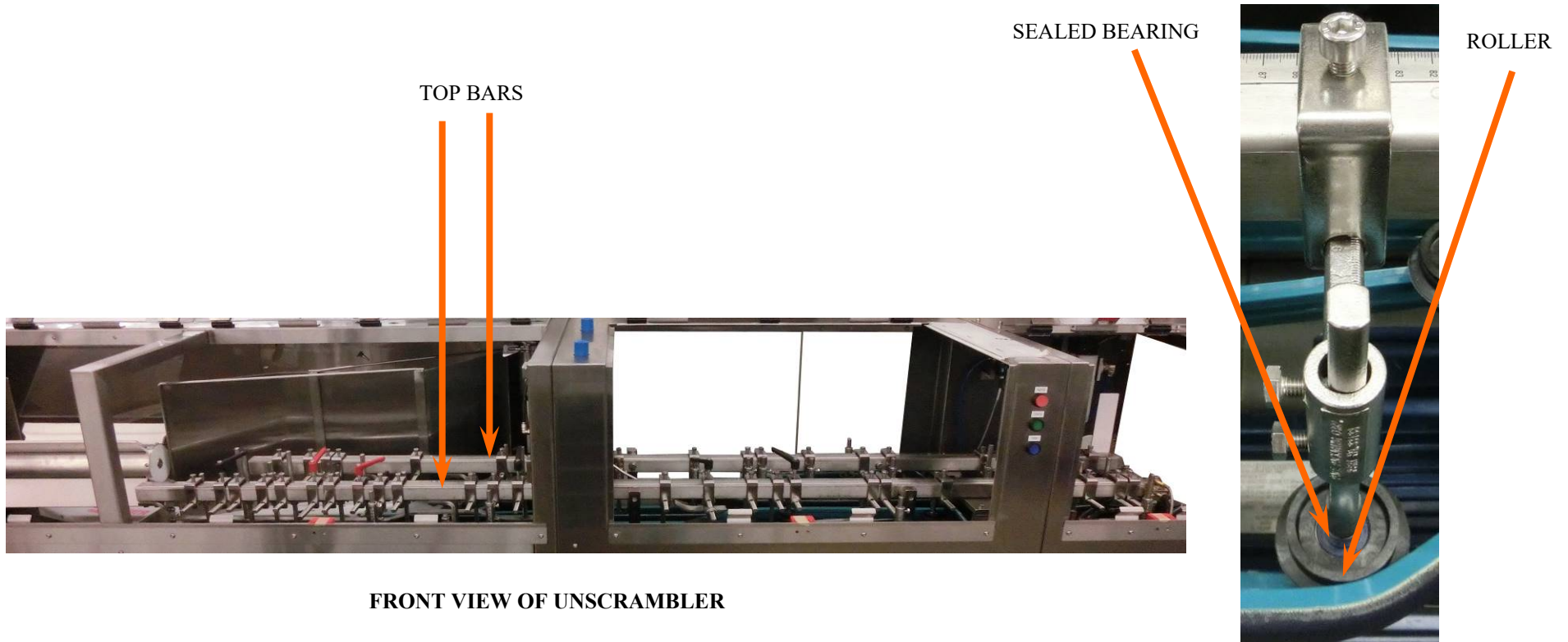
NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

AREA	PART	FREQUENCY	ACTION REQUIRED
7) STAND UP UNIT	STAND UP UNIT DRIVE BELT (GEARBELT) (SEE FIGURE BELOW)	WEEKLY	<p>CHECK THE STAND UP UNIT DRIVE BELT (GEARBELT) FOR WEAR.</p> <p>IF THE STAND UP UNIT DRIVE BELT (GEARBELT) IS WORN OUT, REPLACE THE BELT.</p>
 <p>The diagram shows a side view of the Stand Up Unit. A black arrow at the top points to the right, labeled 'BOTTLE FLOW'. Below it, a blue gearbelt is shown running horizontally across the unit. An arrow points to this belt with the label 'STAND UP UNIT DRIVE BELTS (GEARBELT)'. The unit is shown in a cross-section style, revealing internal components like gears and bearings.</p>			<p>CHECK THE STAND UP UNIT DRIVE BELT (GEARBELT) FOR PROPER TENSION.</p> <p>IF THE BELT IS LOOSE, CHECK THE BELT WRAP AND MAKE SURE THAT IT IS THE SAME AS SHOWN IN THE MANUAL. CHECK TO MAKE SURE THAT THE CORRECT BELT IS USED. REPLACE BELT IF NECESSARY.</p>
			<p>CHECK THE STAND UP UNIT DRIVE BELT (GEARBELT) FOR CLEANLINESS.</p> <p>IF THE STAND UP UNIT DRIVE BELT HAS ONLY DIRT ON IT, USE A DRY WIPE TO REMOVE THE DIRT.</p>
8) STAND UP UNIT	STAND UP UNIT DRIVE BELT TENSIONER BEARINGS	MONTHLY	<p>CHECK THE STAND UP UNIT DRIVE BELT TENSIONER BEARINGS FOR WOBBLING OR NOISE.</p> <p>REPLACE THE BEARINGS IF NECESSARY.</p>

MAINTENANCE TIME TABLE

NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

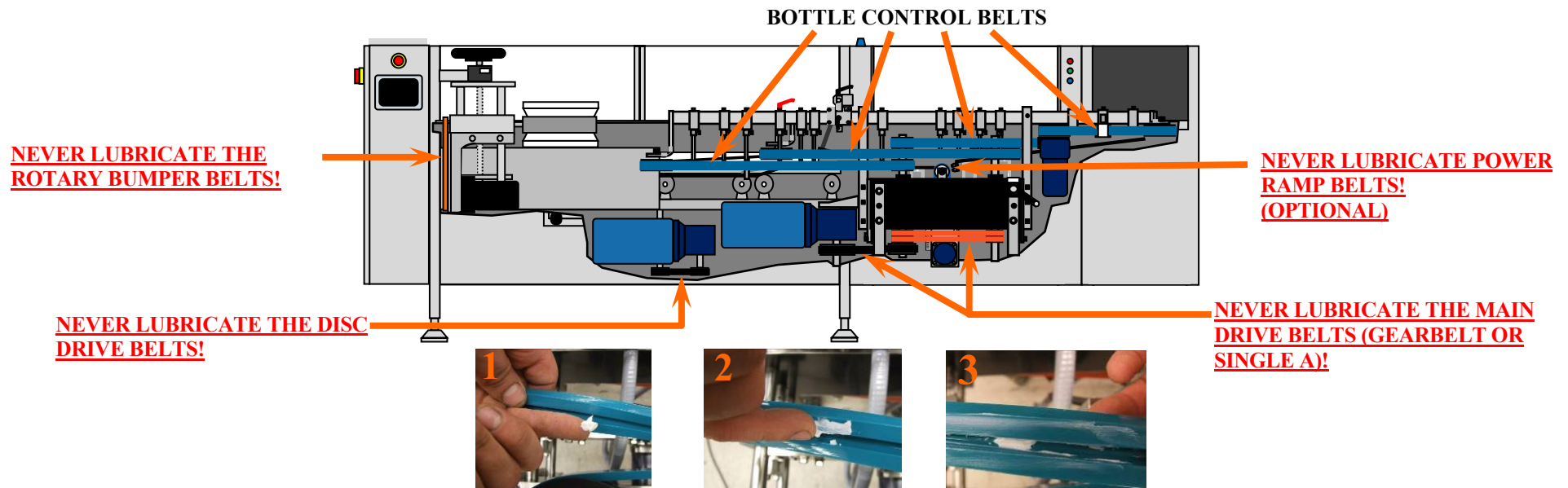
AREA	PART	FREQUENCY	ACTION REQUIRED
9) ALL SECTIONS OF THE MACHINE	SAFETY GUARDS	MONTHLY	CHECK SAFETY GUARD HARDWARE FOR TIGHTNESS.
10) ALL SECTIONS OF THE MACHINE	MULTIPLE COMPONENTS	WEEKLY	ALL STAINLESS STEEL CABINETS: CLEAN WITH STAINLESS STEEL CLEANER ALL LEXAN WINDOWS, GUARDS OR DOORS: CLEAN WITH GLASS CLEANER VACUUM GUARDING UNDERNEATH THE MACHINES WHERE DEBRIS MIGHT COLLECT.
11) ALONG THE TOP BARS	BLACK ROLLERS W/SHAFTS (SEE FIGURE BELOW)	MONTHLY	CHECK SEALED BEARINGS FOR WOBBLE OR NOISE. CHECK BLACK ROLLERS FOR WEAR.



MAINTENANCE TIME TABLE

NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED.

AREA	PART	FREQUENCY	ACTION REQUIRED
12) INSIDE THE BOTTLE UNSCRAMBLER	BOTTLE PROCESSING BELTS	50 HOURS	INSPECT FOR WEAR OR DAMAGE. REPLACE IF NECESSARY.
13) INSIDE THE BOTTLE UNSCRAMBLER	BOTTLE PROCESSING BELTS	DAILY	INSPECT FOR LUBRICATION ON THE SIDE OF THE BELTS THAT IS IN CONTACT WITH THE PULLEYS. APPLY A THIN FILM OF F.D.A. APPROVED FOOD GRADE GREASE TO THE SIDE OF THE BELTS THAT IS IN CONTACT WITH THE PULLEYS. (SEE BELOW)



The recommended way to apply this grease is simple. Apply a small amount to your index finger. Only enough to cover the tip of the finger about ¼” thick is necessary. Spread the grease using your finger to one section of the grooved side of the belt spreading it out so it no longer is visible. One application only is necessary for shorter belts. Two applications may be needed on the longer belts. The customer need is determined by production requirements.

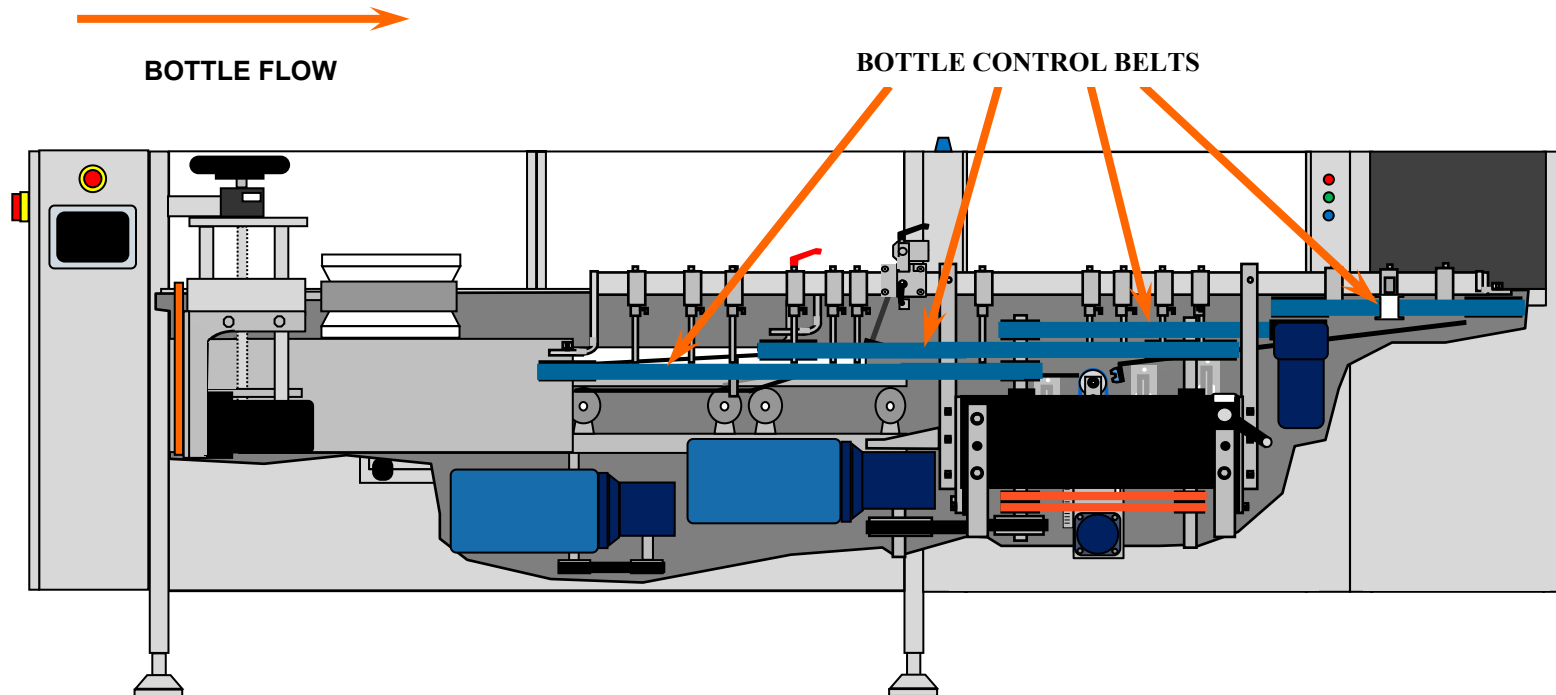
The end result will be a very thin film on the V-groove section of the belt. Belts should be lubricated as needed. Never over grease and never lubricate the bottle contact side of the belts.

Never lubricate the set of Single-A drive belts or the Rotary Bumper Drive Belts! Never lubricate Power Ramp belts (optional). Lubricate only the bottle control belting.

“LUBRIPLATE SUPER FML-2” PACE PART # 32610 IS RECOMMENDED FOR BELT LUBRICATION”

MAINTENANCE TIME TABLE

AREA	PART	FREQUENCY	ACTION REQUIRED
14) INSIDE THE BOTTLE UNSCRAMBLER	BOTTLE CONTROL BELTS ONLY - TWIN A BELTS	*DAILY	INSPECT THE BOTTLE CONTROL BELTS (TWIN A) AND BOTTLE TURNING BELTS FOR DIRT OR DEBRIS. USE A MILD DETERGENT WITH WATER FOR BEST RESULTS. A SPONGE OR FINE SCOTCH BRITE WILL ALSO INCREASE THE CLEANING EFFECTIVENESS. BE SURE THAT BELTS ARE COMPLETELY DRY BEFORE OPERATING IN PRODUCTION. <i>(NEVER USE ANY TYPE OF ALCOHOL OR PETROLEUM PRODUCT TO CLEAN THE URETHANE BELTS.)</i>
* NOTE: THIS IS ONLY A RECOMMENDED FREQUENCY. THE CUSTOMER'S APPLICATION MIGHT REQUIRE MORE OR LESS FREQUENT INSPECTIONS.			

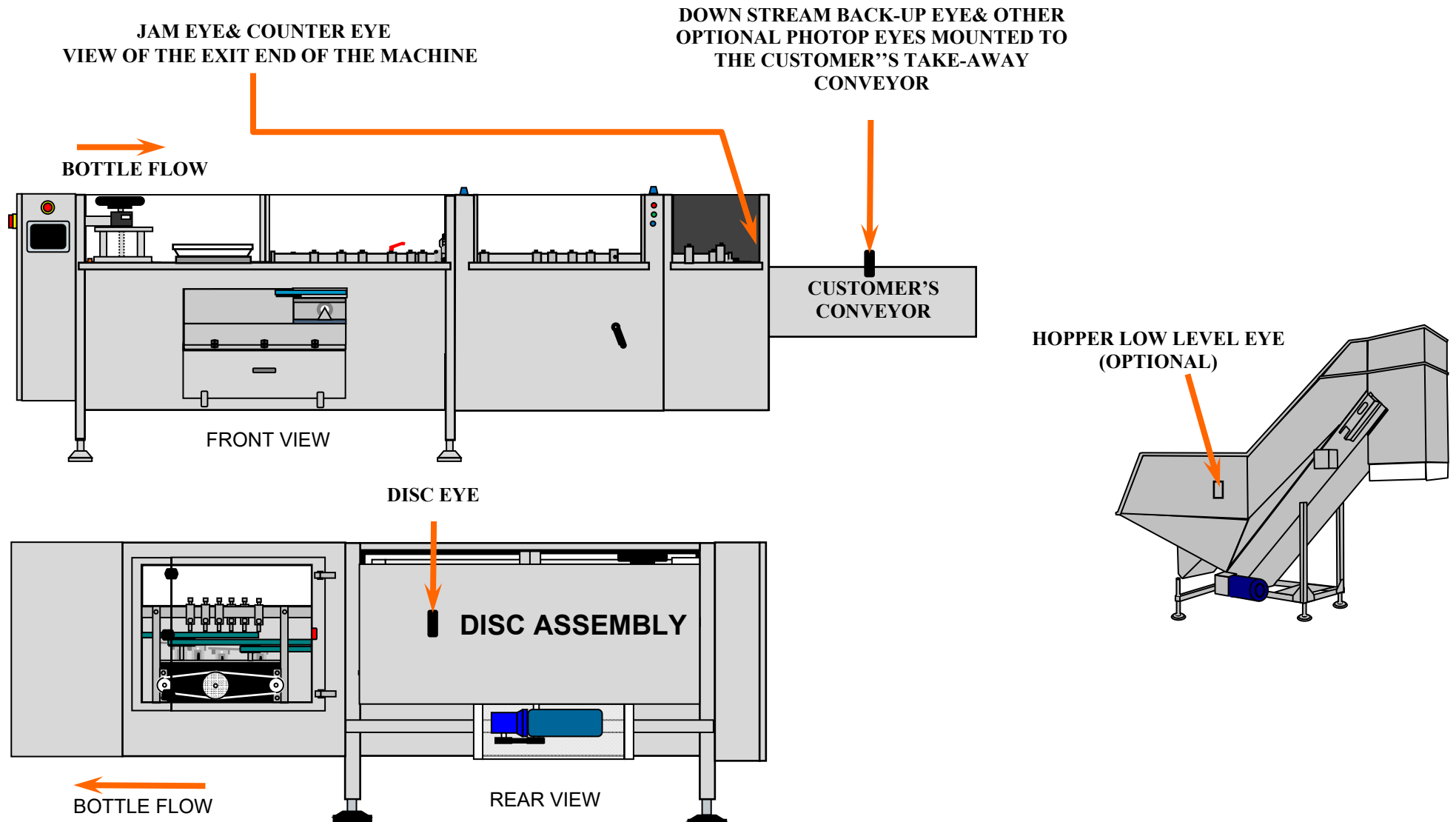


MAINTENANCE TIME TABLE

NOTE: THE GRAPHICS IN THIS MANUAL ARE FOR ILLUSTRATIVE PURPOSES ONLY, AND MAY NOT BE IDENTICAL TO THE MACHINE THAT YOU HAVE PURCHASED. SOME PHOTO EYES (SENSORS) SHOWN HERE MAY NOT APPLY TO YOUR SYSTEM.

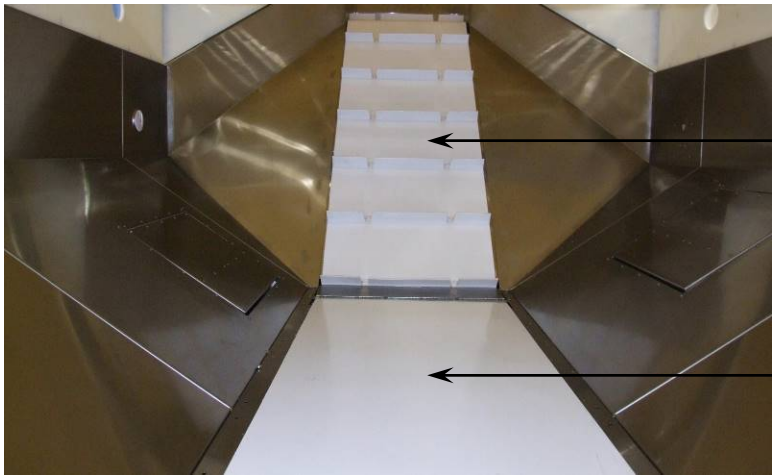
AREA	PART	FREQUENCY	ACTION REQUIRED
15) MULTIPLE LOCATIONS	*ALL PHOTO EYES (SENSORS)	DAILY	ENSURE THAT ALL PHOTO EYES ARE CLEAN AND FREE OF CONDENSATION & DEBRIS.

* NOTE: THE CUSTOMER'S MACHINERY MIGHT HAVE MORE OR LESS PHOTO EYES THAN THOSE SHOWN.



MAINTENANCE TIME TABLE

AREA (HOPPER-OPTIONAL))	PART	FREQUENCY	ACTION REQUIRED
1A) INSIDE THE HOPPER	HOPPER HORIZONTAL& ELEVATOR BELTS	400 HOURS	CHECK THE HOPPER HORIZONTAL & ELEVATOR BELTS FOR WEAR. IF THE HOPPER BELTS ARE WORN OUT, REPLACE THE BELTS. CHECK THE HOPPER BELTS FOR CLEANLINESS.
1B) INSIDE THE HOPPER	HOPPER HORIZONTAL& ELEVATOR BELTS	WEEKLY	IF THE HOPPER BELTS HAVE ONLY DIRT ON THEM, USE A DRY WIPE TO REMOVE THE DIRT.
1C) ALL SECTIONS OF THE MACHINE	MULTIPLE COMPONENTS	WEEKLY	VACUUM GUARDING UNDERNEATH THE MACHINES WHERE DEBRIS MIGHT COLLECT.



HOPPER ELEVATOR BELT

HOPPER HORIZONTAL BELT (OPTIONAL)

PARTS& MAINTENANCE
SECTION III- PART 5
TROUBLESHOOTING GUIDE

Troubleshooting Guide

Symptom	Check
No run on start-up.	1) Check power input at source.
	2) Check all circuit breakers.
	3) Check to make sure all doors are fully closed and that the E-STOP is not engaged .
Hopper not feeding bottles.	1) Check the disc photo sensor for blockage or dirt and ensure that it sees its reflector.
	2) Check the down-stream back-up sensor for blockage or dirt. Ensure that the down-stream back-up sensor sees its reflector.
	3) Check the hopper belt tension.
Disc not feeding bottles.	1) Check the down-stream back-up sensor for blockage or dirt. Ensure that the down-stream back-up sensor sees its reflector.
	2) Check disc drive belts for wear and cleanliness. If the Disc Drive Belt has only dirt on it, Use a dry wipe to remove the dirt.
	3) Check disc drive belts for proper tension. Readjust the tension if possible. If not possible, replace the belt.
	4) Check keystocks on drive pulleys.
Rotary Bumper jams.	1) Check centerlines with Pace manual (Section VI of the operator's manual for current bottle).
	2) Ensure that the Rotary Bumper Blades do not show signs of wear or tear.
	3) Check the Rotary Bumper Drive Belt to ensure that it is in good shape (no damage). <i>Never Lubricate this belt.</i>
	4) Check the Rotary Bumper Drive Belt for proper tension. Belt should not deflect in center. Readjust the tension if possible. If not possible, replace the belt.

Troubleshooting Guide

Symptom	Check
Infeed area jams.	1) Check centerlines with Pace manual (Section VI of the operator's manual for current bottle).
	2) Check the speed settings.
	3) Ensure that infeed knife does not have any daubery built up on it or jammed against it.
Hook Jams.	1) Check centerlines with Pace manual (Section VI of the operator's manual for current bottle).
	2) Check for proper pressure in supply line.
	3) Check hook regulator setting against settings called for in Section VI of the operator's manual for current bottle.
	4) Check the shock to ensure that it is not leaking air and that it is in working condition.
	5) Check to ensure that Rotary Actuator is not leaking air.
	6) Ensure that both High Speed Belts are in good condition and properly tensioned. Check if grease needs to be added to the grooved side of the belt (only enough to cover the tip of the finger ¼" thick). Do not over grease.
	7) Ensure that lower orange drive belts are in good condition and not loose.
	8) Ensure that the main gear belt is not jumping on the pulleys. If jumping is present, remove the belt and flip it over before reinstalling it. It is recommended that you order a new belt from Pace if jumping is present.
Power Ramp Jams. (Your machine may or may not have a Power Ramp.)	1) Check centerlines with Pace manual (Section VI of the operator's manual for current bottle).
	2) Ensure that the Power Ramp Belt is properly tensioned.

Troubleshooting Guide

Symptom	Check
Bottle Stand-Up Area Jams.	1) Check center lines to Pace manual (Section VI of the operator's manual for current bottle
	2) Check the condition of rollers on the top bars. If worn replace with new rollers.
	3) Ensure both High Speed belts are in good condition and properly tensioned.
	4) Ensure both Exit belts are in good condition and properly tensioned
	5) Ensure the lower orange drive belts are in good shape and are not loose. <i>Never grease these belts.</i>
	6) Ensure that the main gear belt is not jumping on the pulleys. If jumping is present, remove the belt and flip it over before reinstalling it. It is recommended that you order a new belt from Pace if jumping is present.
	7) Check if grease needs to be added to grooved side of High Speed or Exit belts. (Note: DO NOT OVER GREASE....)

**PARTS& MAINTENANCE
SECTION III- PART 6**

HOPPER BELT INSTALLATION

Hopper belt replacement

(THE PACE HOPPER IS OPTIONAL.)

RUBBERIZED ELEVATOR BELT



HOPPER BIN

- The following is a step by step instruction on how to change a Pace Packaging hopper belt.
- This process is universal for all 12, 16 and 24” belts.
- Average time to complete with two people, 20-30 minutes.
- The graphics utilized in this manual may look different than your specific hopper. They are for illustration purposes only. Hoppers can vary in size and configurations depending upon the customer requirements.
- It is important that this manual be read completely before work begins.
- There are safety considerations that must be planned for before work starts.

Elevator belt removal

Before we begin, unplug the hopper from the unscrambler and lock it out.

The first step is to gain access to the belt.

Remove the belt adjustment screw covers (both sides of the hopper). A 1/8 Allen Wrench is needed for this step.

Retain all hardware that has been removed.



ADJUSTMENT SCREW COVER

ADJUSTMENT SCREW



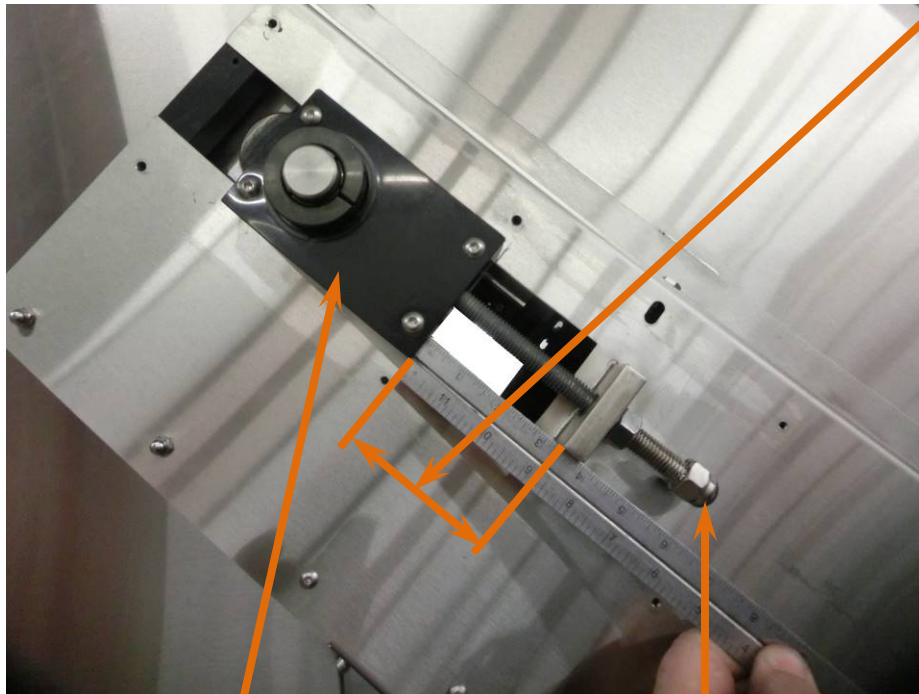
**ADJUSTMENT SCREW
COVER ON**

**ADJUSTMENT SCREW
COVER REMOVED**

Before you loosen the belt, take a measurement between the slide block and the fixed flange. Do this on both sides of the hopper. They may be different.

You can also mark where the slide block is but a measurement is more accurate. This measurement will be useful when you re-tension the new belt. Keep in mind that the new belt will track differently than the old one. This measurement will help speed the process.

Now loosen the adjustment nuts & bolts on both sides of the hopper and allow the slide block to retract as far as possible. Utilize a 3/4" wrench.



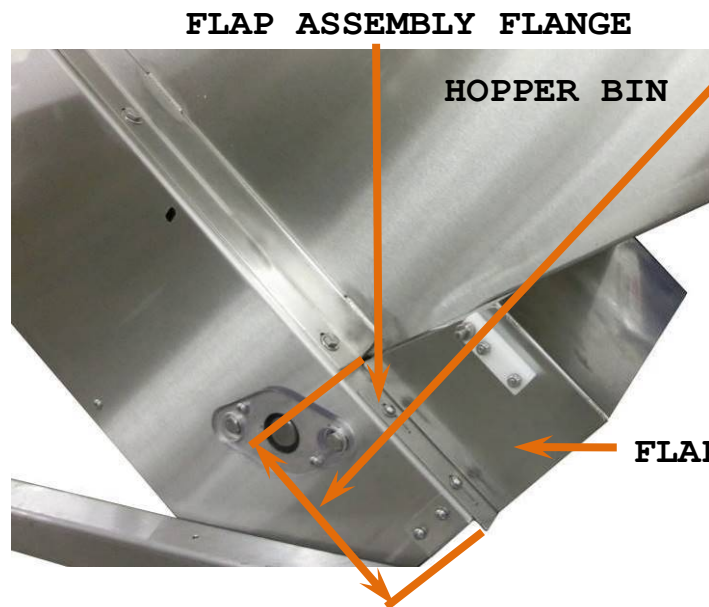
ADJUSTMENT BOLT

SLIDE BLOCK (IDLER BEARING MOUNT)

SLIDE BLOCK (IDLER BEARING MOUNT)

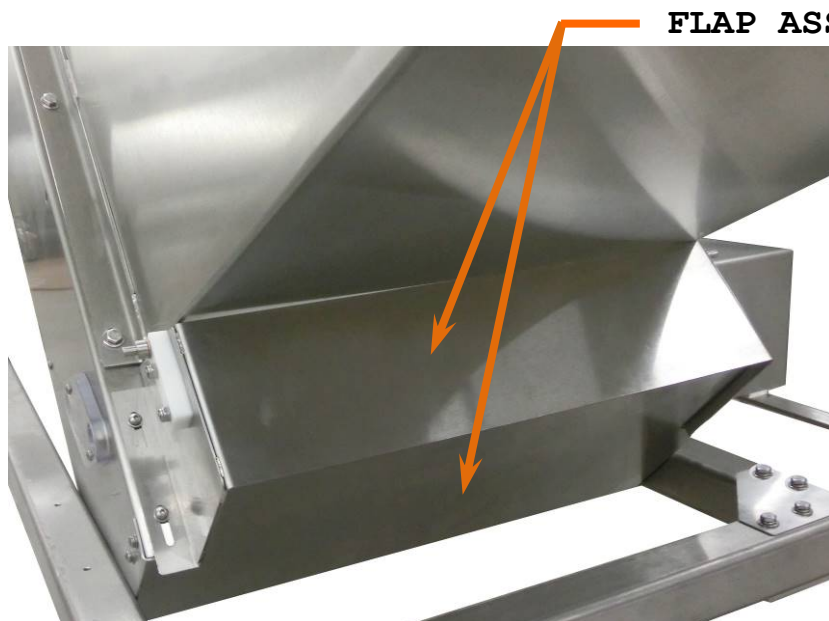
ADJUSTMENT BOLT



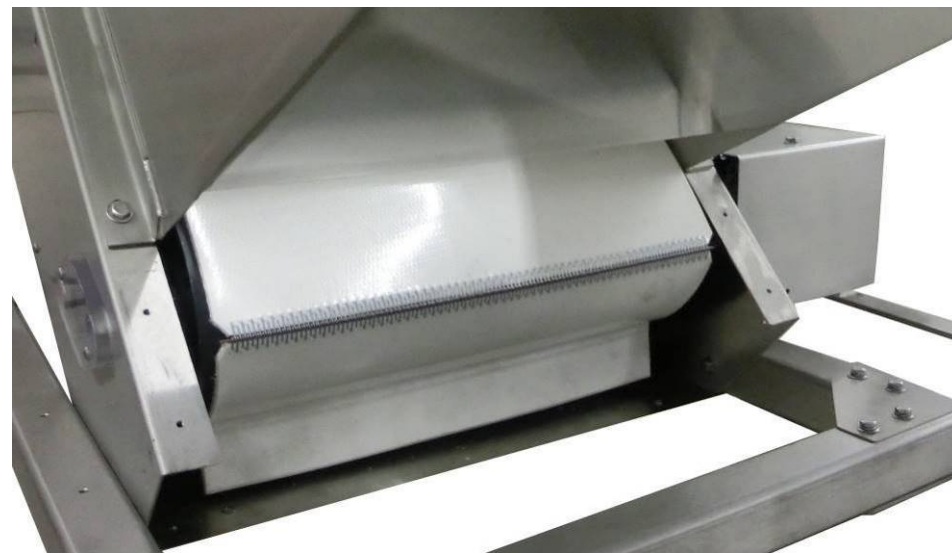


Measure the distance from the hopper bin to the end of the flap assembly flange and write it down. This measurement will be useful when you reinstall this assembly. Remove both hopper flap assembly guards and set them to the side. A 1/8 Allen Wrench is needed for this step.

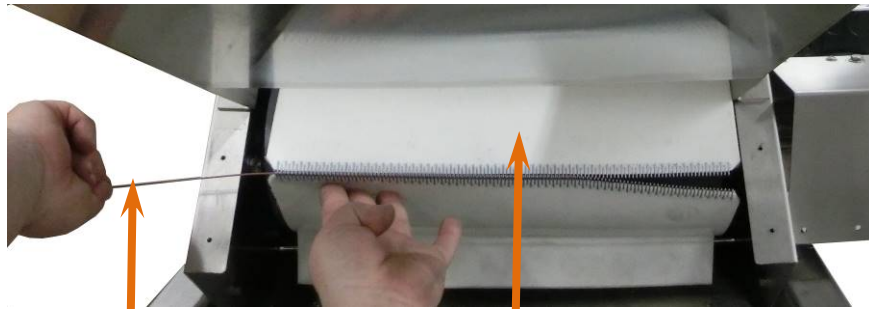
Removing these guards will make reinstalling the new belt much easier.



FLAP ASSEMBLY GUARDS ON



FLAP ASSEMBLY GUARDS REMOVED



HOPPER PIN

HOPPER BELT

PULL THE TOP SIDE
TOWARDS YOU

HOPPER BELT

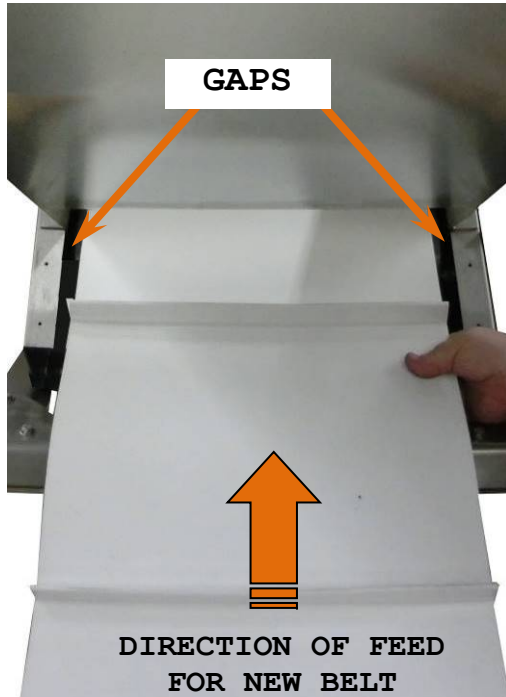


Now that the tension is fully removed and the belt is sitting in the elevator loose, rotate the belt by hand until the belt seam lines up with the opening at the bottom of the hopper drive. Grab the belt on each side of the seam and pull toward you so the seam has no pressure on it. Have a helper grab the pin with a pair of pliers and pull it out of the seam slowly.

Once the pin has been removed, allow the bottom side to drop. **MAKE SURE THE AREA UNDER THE BELT IS CLEAR.**

Pull the top side toward you and allow it to pile up on the floor in front of you. You may need some help to pull the belt out if it gets caught on other hopper components. While you are pulling, have your helper thread the slack over any obstructions.

Hopper Belt Installation

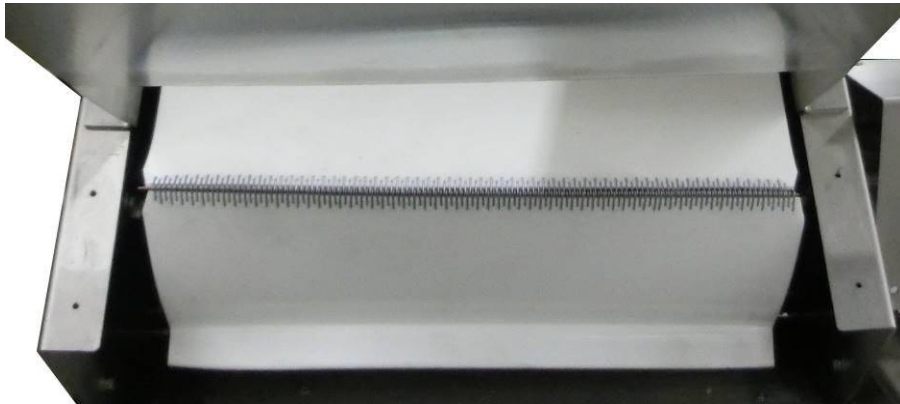
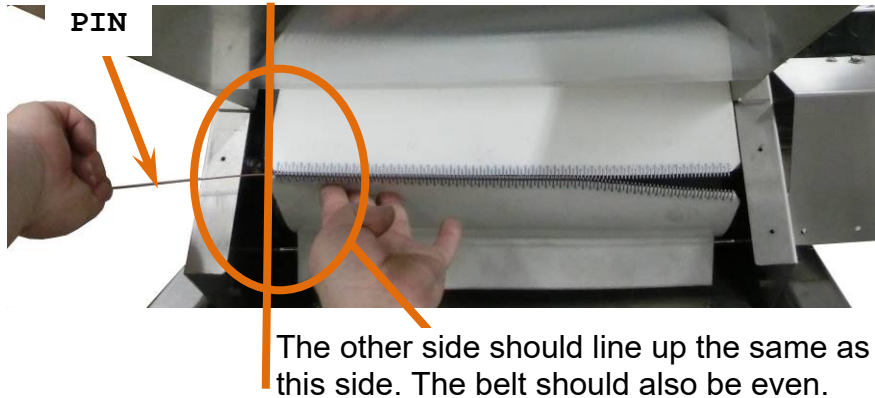


When you receive the new belt it should be rolled up with the cleats facing in. Leave the new belt rolled up so that the loose end is pointing into the hopper elevator. Unroll the belt and slide it over the hopper drive drum at the bottom of the hopper elevator. Try to position the hopper belt along the center of the drive drum when feeding it through. The gaps on either side of the hopper belt should be as close to even as possible. Your helper should grab the hopper belt (see picture on the left) and guide it over and around the upper drum so that the end can return back to you at the bottom. Your helper can also inform you if the belt is not tracking properly.



HOPPER DRIVE DRUM

You must hold on to the end of the rolled up belt and control the rate of speed while your helper is pulling the belt. This will prevent the belt from getting caught on anything.



Once the new belt is threaded correctly, line up the two halves of the seam. Be very careful to line up the seam loops correctly from side to side or the belt will not track properly. When you are sure that the seam is even, start to insert the pin.

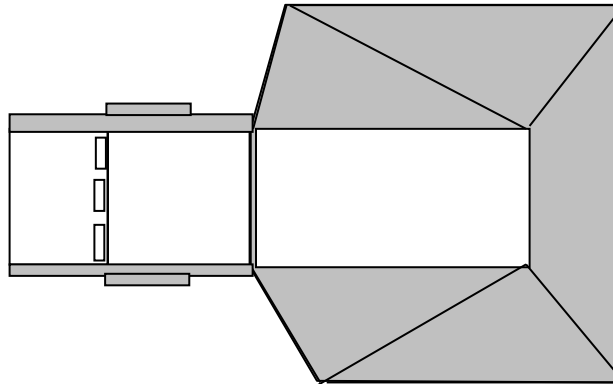
This will require two people so your helper is still needed. As your helper pushes the pin in you will have to line up the seam loops. Most times as you push the pin in the seam will line up on its own. However, it is easier if you line up the seam as the pin is being inserted. Push the pin in far enough so that nothing sticks out past the belt. There is no need to bend the ends over since the tension will hold the pin in place.

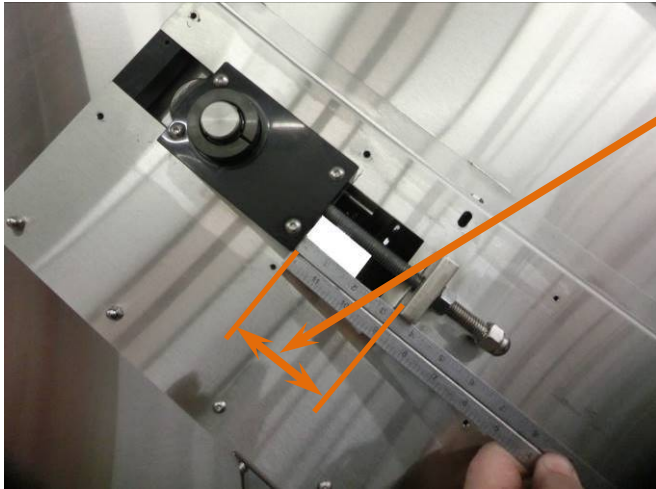
Tighten the adjustment bolt at the top of the hopper conveyor until the measurement taken earlier is obtained. This will provide you with a starting point when attempting to achieve proper tension for the hopper belt. You may have to adjust this measurement as you track the belt.

SAFETY WARNING

- TO CORRECTLY TRACK THE NEW BELT IT MUST BE RUN FOR A PERIOD OF 15 MINUTES.
- DURING THIS TIME THE BELT WILL SHIFT LEFT AND / OR RIGHT. INSTALLATION FLAPPER ASSEMBLY GUARDS BEFORE THIS BELT TRACKING PERIOD WILL RESULT IN DAMAGE TO THE BELT.
- THE WORK AREA AROUND THE HOPPER MUST BE CLOSED OFF TO EVERYONE EXCEPT THE MECHANIC(S) PERFORMING THE REPAIR.
- A PERSON ACTING AS A SAFETY OFFICER MUST OPERATE THE EMERGENCY STOP SWITCH TO INSURE THE SAFETY OF THE MECHANICS WHILE THE HOPPER IS RUNNING WITH OUT GAURDS.
- FOLLOW ALL LOCAL SAFETY REGULATIONS REGARDING HAZARDOUS WORK ENVIROMENT.
- **Stay clear of exposed belt while running!**

Danger area
Stay clear

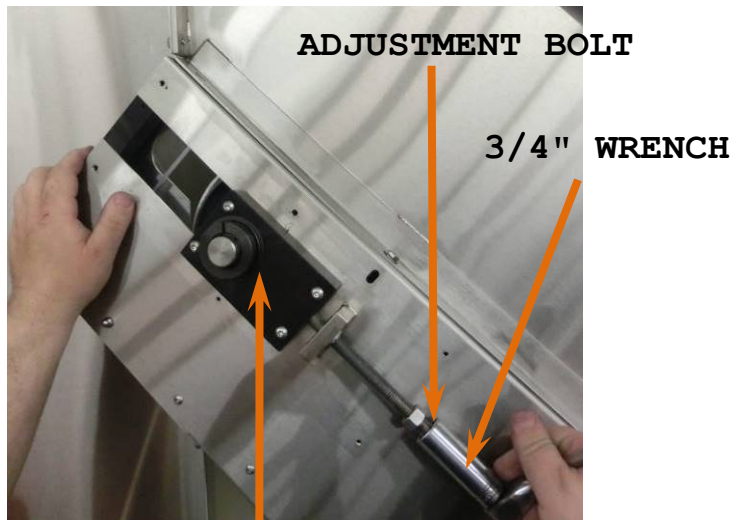




Now that the new belt is installed, return the slide blocks to the measurement you took before.

This is only a starting point with the new belt. Each belt tracks differently.

Run the hopper very slowly to insure it will not walk to the side. Use the tension adjustment bolt to make fine adjustments to where the belt is tracking. Try to center the belt in the frame.



You may have to repeat this process after you reinstall all the guards.

Please be very careful. Damage can be done very quickly if the belt is not tracked correctly before and after all guards are reinstalled!

SLIDE BLOCK (IDLER BEARING MOUNT)

Once you tracked the belt correctly, install all the guards that were removed before.

PARTS& MAINTENANCE
SECTION III- PART 7

MOTOR AND REDUCER MAINTENANCE

REDUCER LUBRICATION

Lubrication requirements are minimal.

SEALED REDUCERS (MOTOVARIO & 90 DEGREE CROWN DRIVES):

* These reducers are non vented, filled with synthetic lubricants & require no lubrication.

ELECTRICAL

* For customers with DC Motors only:
Inspect DC Motor Brushes for wear every 4 months or 1000 hours of operation.

FUNCTIONAL DESCRIPTION

SECTION IV

FUNCTIONAL DESCRIPTION

GENERAL

Randomly oriented bottles are received in bulk into the hopper and supplied to the centrifugal disc by means of a conveyor. In the disc, the bottles are guided into a qualified position (e.g., single stream, either neck leading or base leading) suitable for the stand up unit to process them into the required discharge position (e.g., standing; horizontal, base leading; horizontal, neck leading). Symmetrical bottles are stabilized and released on the customer conveyor. Non-symmetrical bottles undergo an additional process in order to be released onto the customer conveyor in a uniform manner.

BULK HOPPER

The bulk hopper stores a supply of bottles and feeds them to the centrifugal disc by means of a conveyor with cleats. The speed of the conveyor drive motor is adjustable by means of a potentiometer (or PLC) located within the electrical enclosure. The start-stop action of the motor is controlled by a sensor mounted next to the disc. It controls the level of bottles on the disc.

The bulk hopper requires no change parts for proper operation with differing shapes or sizes of bottles. However, the recommended operating speed may change as noted in Section VI - Set Up Instructions.

Warning

Care must be taken over the following:

- 1. Loading the bottles in the hopper must be possible without exceeding normal ergonomic requirements. A suitable platform may be needed.*
- 2. Do not enter hopper during operation. The hopper conveyor could be damaged and injury may result.*
- 3. Observe the location of support legs to avoid tripping and possible injury.*

CENTRIFUGAL DISC

The disc receives bottles in random orientation from the hopper and, by means of centrifugal action, guides the bottles into a groove on the outer edge of the disc. From this groove bottles are fed into the stand up unit.

The design of the rotating tooling disc is determined by the size and shape of bottles to be unscrambled, and by the feed rate required.

Whenever more than one size and/or shape of bottles are to be unscrambled, the disc is designed to be adapted to the different bottles by means of disc inserts (rings).

A rotary bumper rejects excess flow of bottles not properly qualified in the disc groove, from entering the stand up unit.

The speed of disc drive motor is adjustable by a potentiometer located in the main electrical enclosure. The speed of the disc and the hopper conveyor, as well as the action of the disc level sensor, should be adjusted to provide a controlled, even flow of bottles into the stand up unit.

STAND UP UNIT

The design of the stand up unit incorporates several features which enable a Pace Unscrambler to be adjusted, with a minimum of time for changeover, for different sizes and shapes of bottles.

In general, the stand up unit performs the following functions:

- A. Receive qualified bottles (single stream of neck or base leading bottles) in a set of infeed belts.
- B. Accelerate bottles in a set of high speed belts to provide sufficient separation between bottles for bottle orientation as determined by the "functional requirement."
- C. Process and properly orient the bottles as determined by their "functional requirement".
- D. Slow the properly oriented bottles in a set of exit belts for stable transfer onto the customer conveyor (symmetrical bottles).

The "functional requirement" differs from machine to machine and from bottle to bottle within the same machine. Examples of "functional requirements" follow:

- * Position bottles from a horizontal, neck or base leading orientation, into a standing position.
- * Position bottles from a horizontal, neck or base leading orientation, into an upside down orientation in which they pass over an air rinse station and then are processed into a "normal stand up."

The "functional requirement" determines the specific design of the tooling that is developed by Pace. The versatility of the stand up unit permits Pace to accommodate an almost unlimited range of requirements in such a way that very minor adjustments will be required during production changeovers.

The tooling developed at Pace for a given unscramble is detailed in Section VI - Set Up Instructions.

Warning

Care must be taken over the following:

1. *Electrical Connections and Panels should not be opened with or interfered with except by a suitably qualified technician.*
2. *Machine must be operated with guards in place.*
3. *Guard Interlocks function should be checked weekly by a qualified technician.*

INSTALLATION & START-UP

SECTION V

INSTALLATION & START UP

GENERAL

Warning

Ensure that only qualified personnel perform any lifting and transport operations required to place the equipment in the designated location.

It is important to do the following steps in the order presented to obtain the correct overall height of the System.

ASSEMBLY

- * Place pallet mounted machine sections in their desired locations on the production floor.
- * Remove lag bolts from pallets. Lift the machine sections using the hot rolled steel bars attached to the legs of the machine. Remove the pallets.
- * If your System has a Bottle Axial Orientor (BAO), locate the BAO exit conveyor closely against the customer conveyor for a smooth side transfer. DO NOT USE A DEAD PLATE. If your System does not have a BAO, go to the next step.
- * Place the unscrambler so that its exit belts are over the customer conveyor. The unscrambler should be positioned so that the bottle contact surface of the operator's side exit belt is even with the edge of the customer conveyor chain. Vertically, adjust the feet so that the bottom of the exit pulleys have the proper clearance to the exit conveyor as specified in Section VI. The conveyor should be as far under the belts as possible without hitting the exit tooling.
- * Locate the bulk hopper next to the disc.

ELECTRICAL

Warning

Electrical Connections and Panels should not be opened or interfered with except by a suitably qualified technician.

- * Connect the System to factory power. Refer to electrical diagram for power input requirement. Ensure that the factory ground is hooked to the PE (Physical Earth) terminals located next to the power disconnect.
- * System Start/Stop Control. All System motors start or stop under the command of this control. This control affects only the power to the motors. The control circuits remain active.

Warning

The electrical system remains "live" regardless of the condition of the Start/Stop Control. Power to the entire electrical system can only be shut down using the electrical disconnect switch.

- * Downstream Backup Control.
Standard. The downstream backup photo electric sensor with cable is packed at the exit of the stand up unit. Install the sensor at a suitable location on the customer conveyor. This control stops the output of the System if a bottle back up is sensed on the conveyor. The System restarts automatically after a back up clears.
- * Disc Level Control. A photo electric sensor, located in the centrifugal disc, activates the hopper motor as required to maintain the proper level of bottles in the disc.

COMPRESSED AIR

- * If the System is provided with a hook mechanism or air cleaning system, it will require compressed air. Connect compressed air supply at the fitting provided. The brass bulkhead fitting will be located on the non-operator side of the machine.

Warning

The air supply should be disconnected when alterations or adjustments are made to the system.

START UP

Warning

Ensure that all guards are fitted and working correctly before commencing start up.

- * Many Pace Systems are started by customer personnel without assistance from a Pace Field Service Representative. For assistance with start up and training, contact Pace to arrange for a start up service visit.
- * Inspect the entire System to be sure that all shipping straps and other shipping materials have been removed, and that no physical damage has occurred.
- * For machines with an HMI (Human Machine Interface), select the container format (recipe) that you desire.
- * For machines with Speed Potentiometers only; Set speed control dials on the front of the electrical enclosure to the settings given in **Section VI - Set Up Instructions**.
- * With the machine empty of bottles, operate the START and STOP controls briefly and verify that each of the modules of your System runs freely and in the proper direction.
- * Set tooling and adjustments per **Section VI - Set Up Instructions** for the bottle size to be handled and place a small quantity of those bottles into the hopper.
- * Run the System and observe the bottle action throughout.
- * Test the downstream back up control to verify that it will stop the System when blocked. If your System has the automatic variable feed rate control, test for speed shift by blocking the photo electric sensors and watching to see if the disc slows and then stops correctly.
- * After completing the above steps satisfactorily, the System is ready for production operation
- * If the System was designed to unscramble more than one bottle, refer to Section VI - Set Up Instructions for the required adjustments.

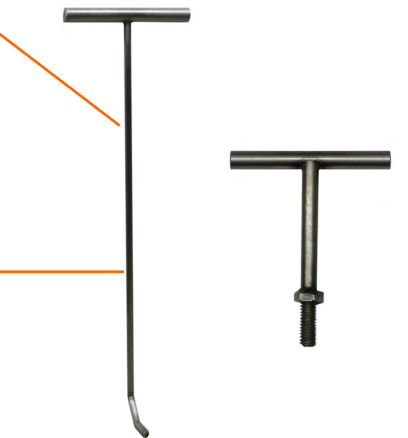
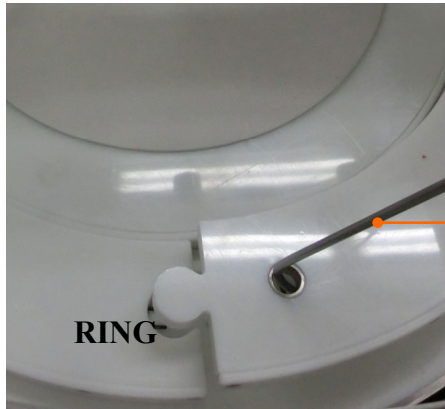
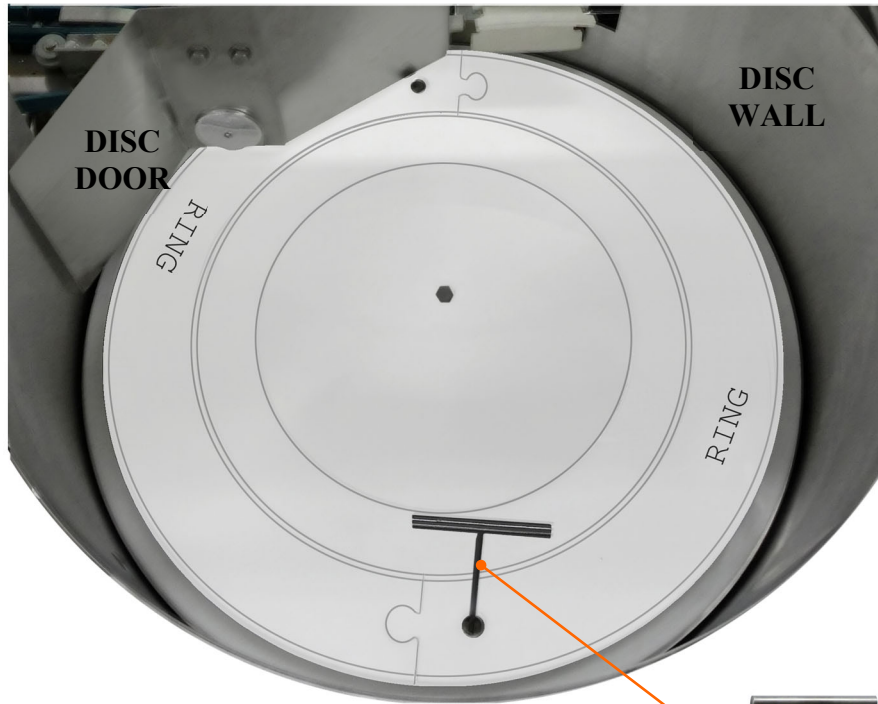
SET-UP SPECIFICATION DIAGRAMS

SECTION VI

BOTTLES FOR SERIAL NUMBER 4836



No.	SIZE	TYPE	Color	MATERIAL	RATE
1	2 oz	Round	Natural	HDPE	110 bpm
2	4 oz	Round	Natural	HDPE	95 bpm
3	8 oz	Round	Natural	HDPE	80 bpm
4	2 oz	Jar	Natural	HDPE	110 bpm
5	4 oz	Jar	Natural	HDPE	95 bpm
6	8 oz	Jar	Natural	HDPE	80 bpm
7	12 oz	Jar	Natural	HDPE	80 bpm
8	16 oz	Jar	Natural	HDPE	80 bpm



RING REMOVAL TOOL(S)

DISC RING CHANGE-OVER FIGURE 1A

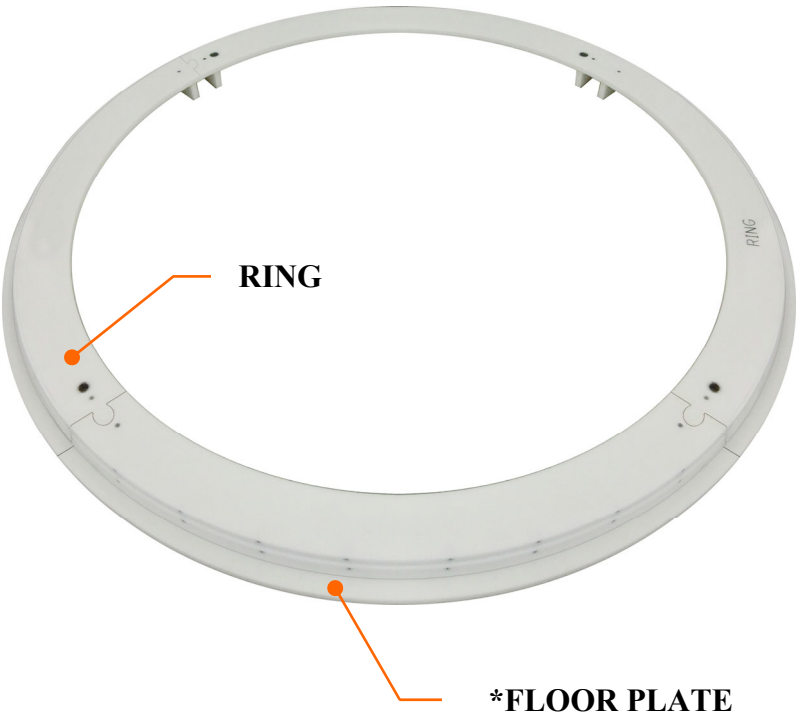
REMOVE THE RING BY UTILIZING THE TOOL SUPPLIED BY PACE PACKAGING FOR EXACTLY THIS PURPOSE. THIS TOOL IS STORED ON THE DISC WALL. THE RING IS REMOVED ONE SEGMENT AT A TIME. THE QUANTITY OF SEGMENTS THAT MAKE UP ONE RING IS DETERMINED BY THE SIZE OF THE MAIN DISC.

INSTALL THE DISC RING CORRESPONDING TO THE CONTAINER. REFERENCE FIGURE 1B FOR THE RING SELECTION.



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NOTE: RINGS THAT ARE REMOVED MUST BE STORED ON A FLAT SURFACE OR PACE RING STORAGE CART.



*** THE FLOOR PLATE IS ATTACHED TO THE CORRESPONDING RING. NOT ALL RINGS HAVE A FLOOR PLATE**

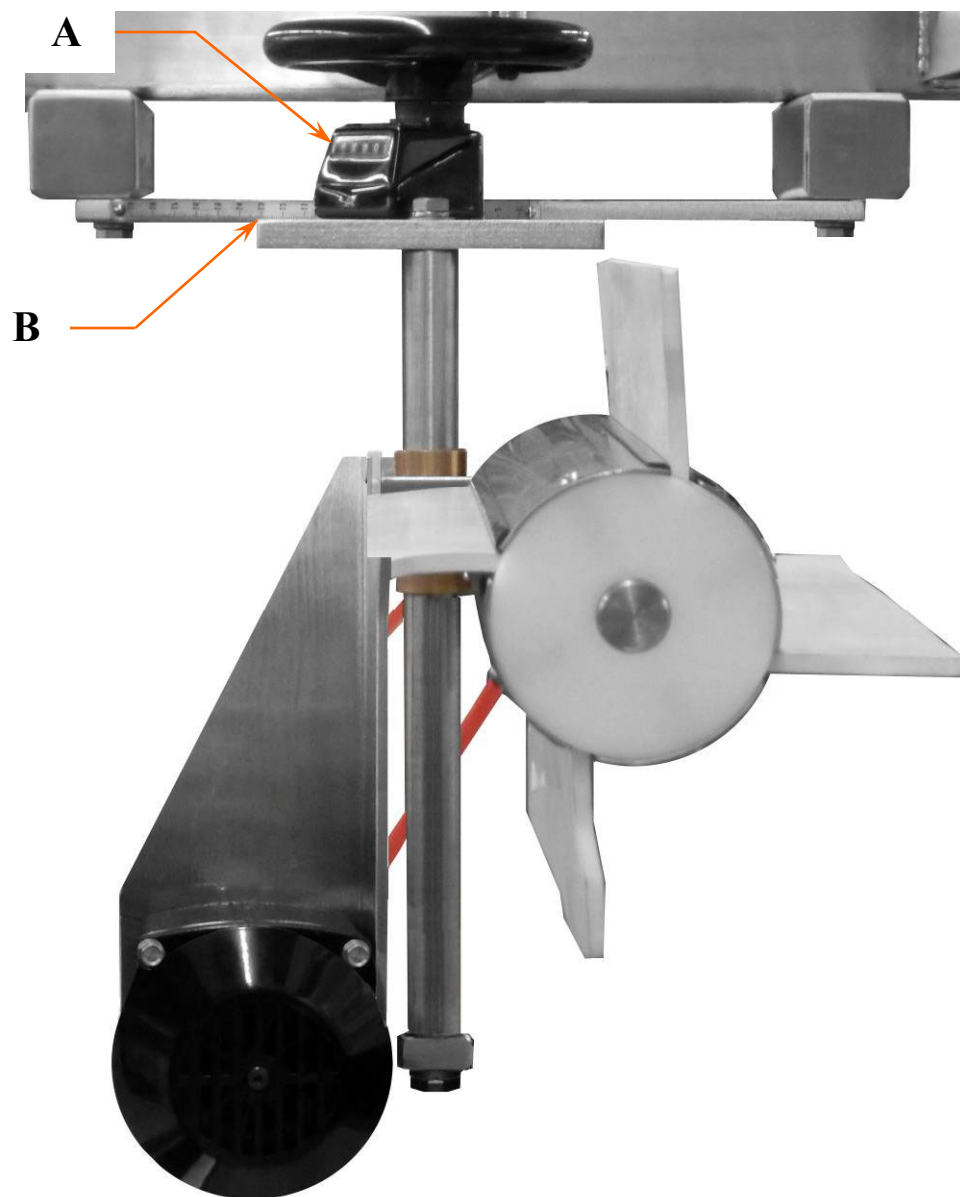
DISC TOOLING USED

FIGURE 1B

BOTTLE SIZE	RING	FLOOR PLATE
2 OZ ROUND	RING 5	FLOOR PLATE
4 OZ ROUND	RING 4	FLOOR PLATE
8 OZ ROUND	RING 3	FLOOR PLATE
2 OZ JAR	RING 6	FLOOR PLATE
4 OZ JAR	RING 3	FLOOR PLATE
8 OZ JAR	RING 2	NOT USED
12 OZ JAR	RING 7	NOT USED
16 OZ JAR	RING 7	NOT USED



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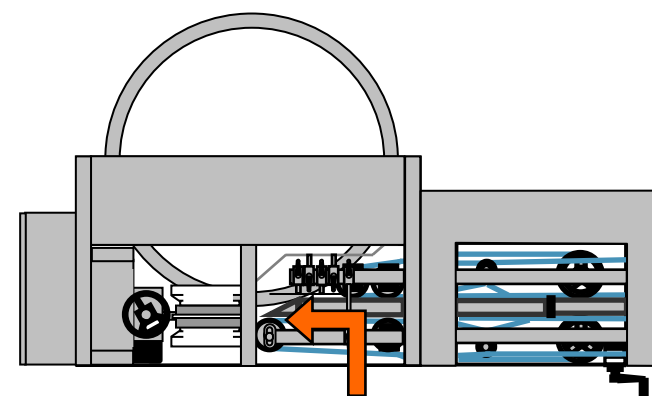
ROTARY BUMPER SETTINGS

FIGURE 2

BOTTLE SIZE	A	B
2 OZ ROUND	01545	4.9
4 OZ ROUND	01500	4.9
8 OZ ROUND	01440	4.9
2 OZ JAR	01445	4.9
4 OZ JAR	01385	4.9
8 OZ JAR	01426	4.9
12 OZ JAR	01316	4.9
16 OZ JAR	01316	4.9

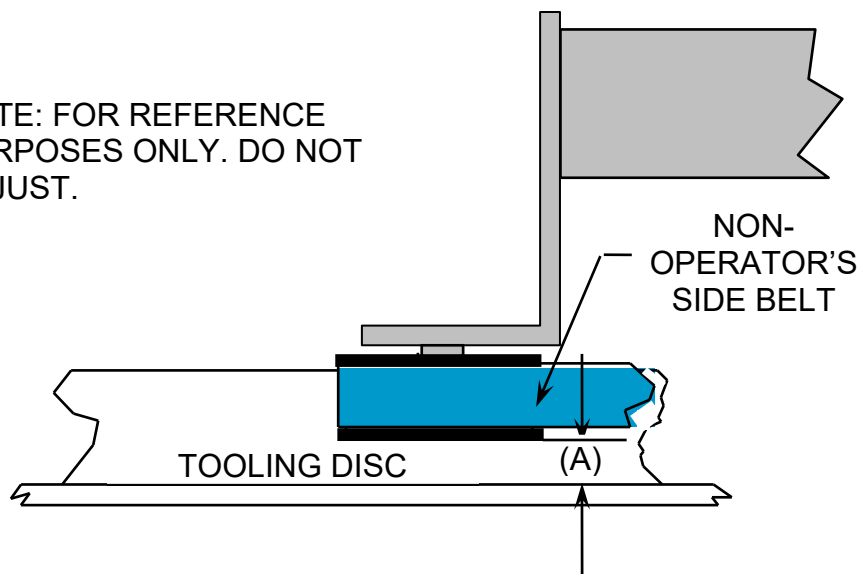


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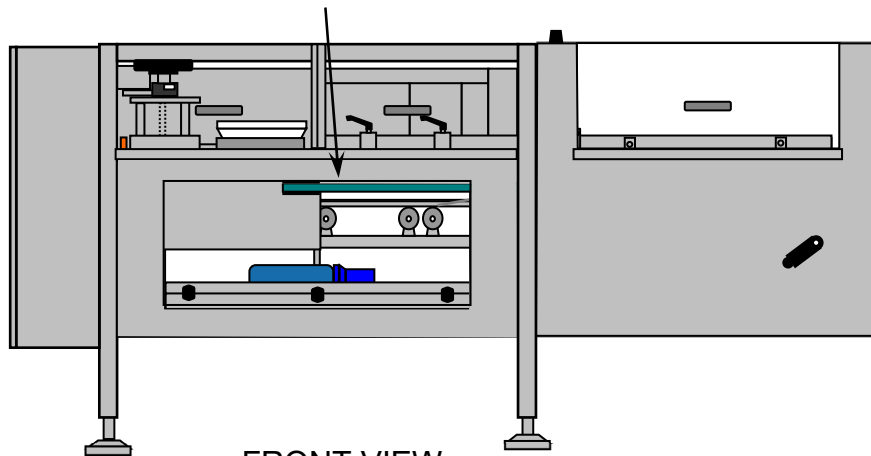


VIEW SHOWN

NOTE: FOR REFERENCE
PURPOSES ONLY. DO NOT
ADJUST.



VIEW SHOWN ABOVE



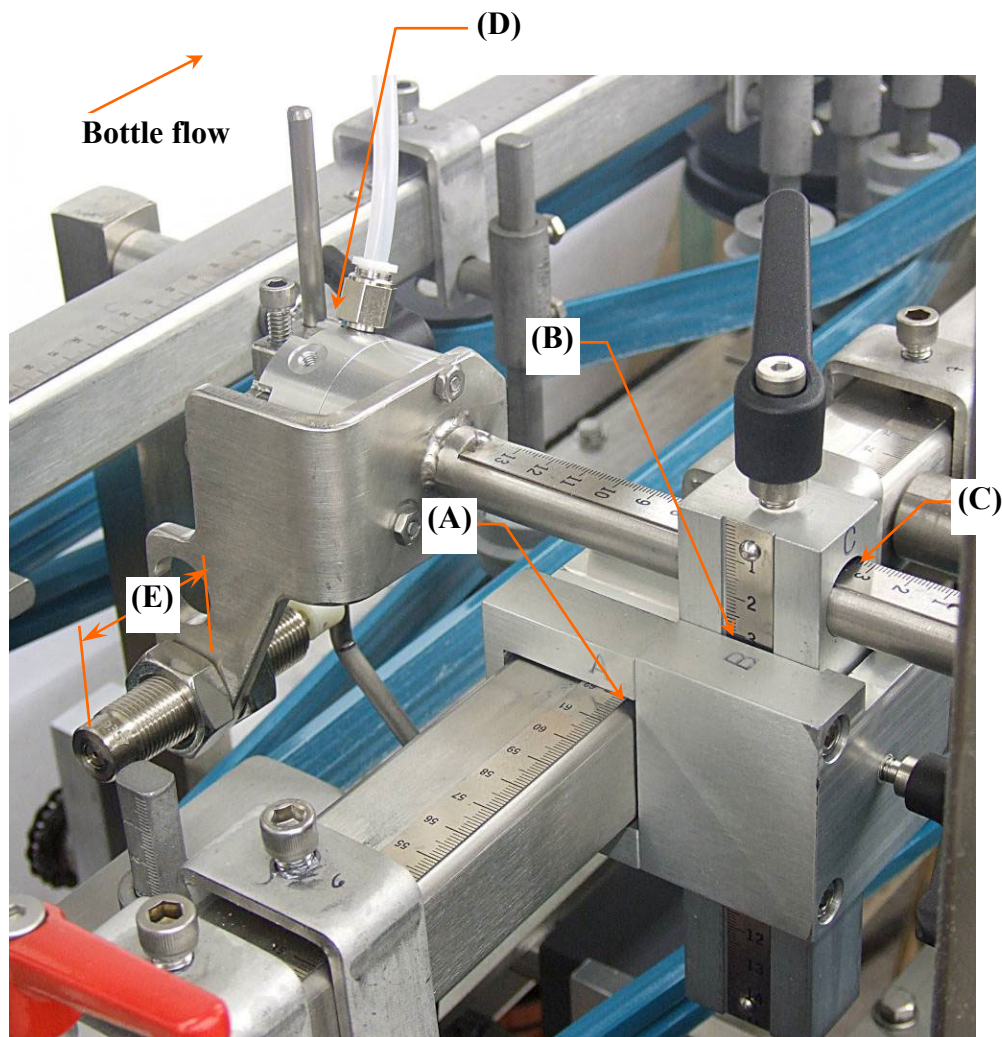
FRONT VIEW

INPUT SHEAVE HEIGHT

FIGURE 3

[illegible]

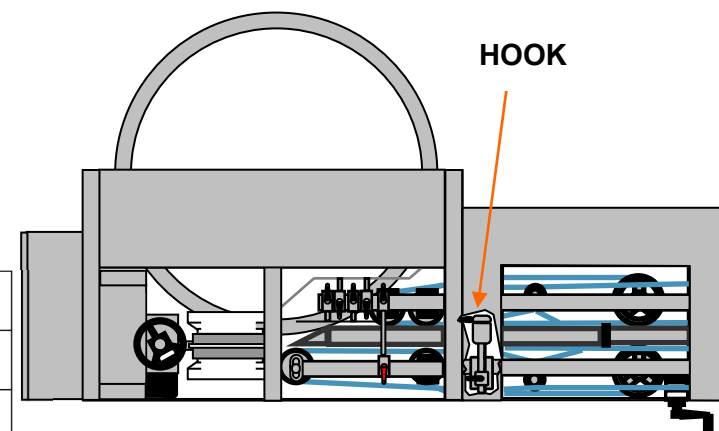
MACHINE S/N:	4836
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HOOK SETTINGS						
FIGURE 4A						
BOTTLE SIZE	HOOK	A	B	C	D	E
2 OZ ROUND	A	74.5	2.0	5.4	1	3.7
4 OZ ROUND	A	74.5	2.1	5.1	1	3.7
8 OZ ROUND	A	74.5	2.0	4.9	2	3.7
2 OZ JAR	B	72.5	2.0	3.5	1	3.7
4 OZ JAR	B	71.7	2.0	3.9	1	3.7
8 OZ JAR	B	71.7	2.0	3.2	1	3.7
12 OZ JAR	B	71.7	2.0	1.9	2	3.7
16 OZ JAR	B	71.7	2.0	1.9	2	3.7

OPERATOR'S
SIDE

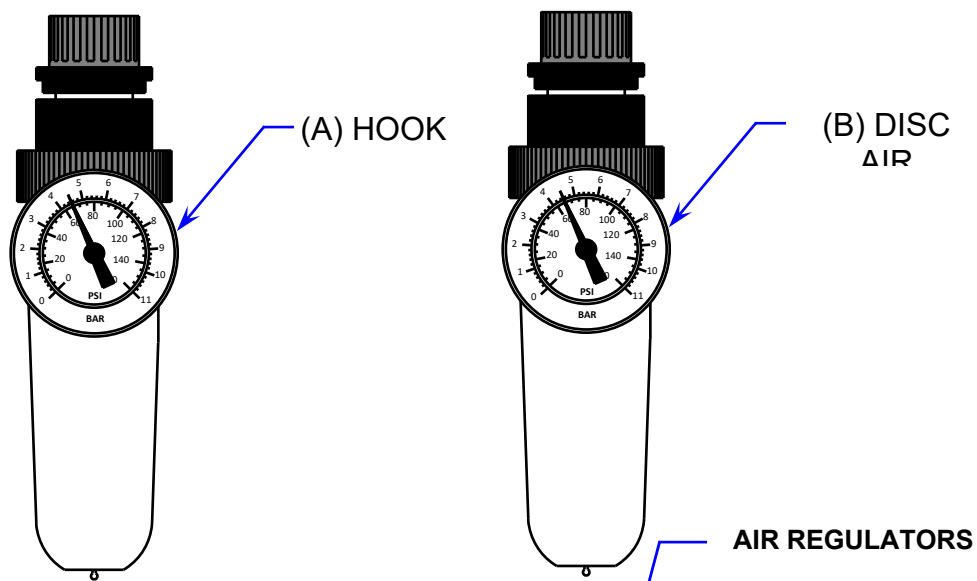
CLOSE-UP OF CUTAWAY



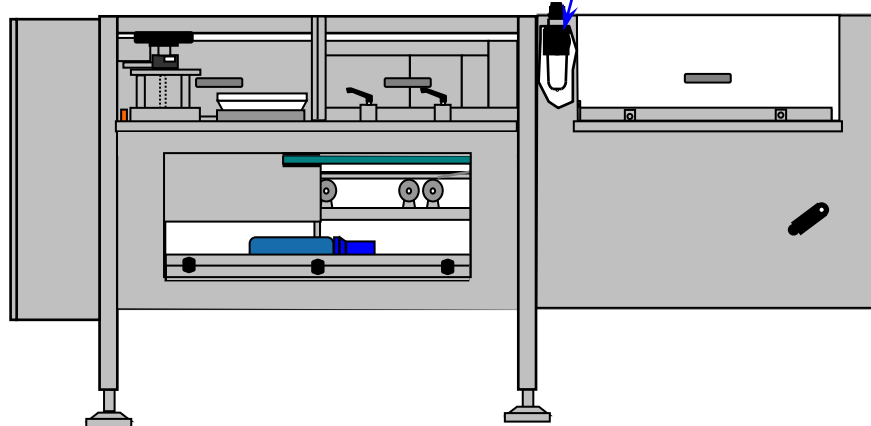
TOP VIEW: CUTAWAY ILLUSTRATION

MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
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CLOSE-UP OF CUTAWAY



FRONT VIEW: CUTAWAY ILLUSTRATION

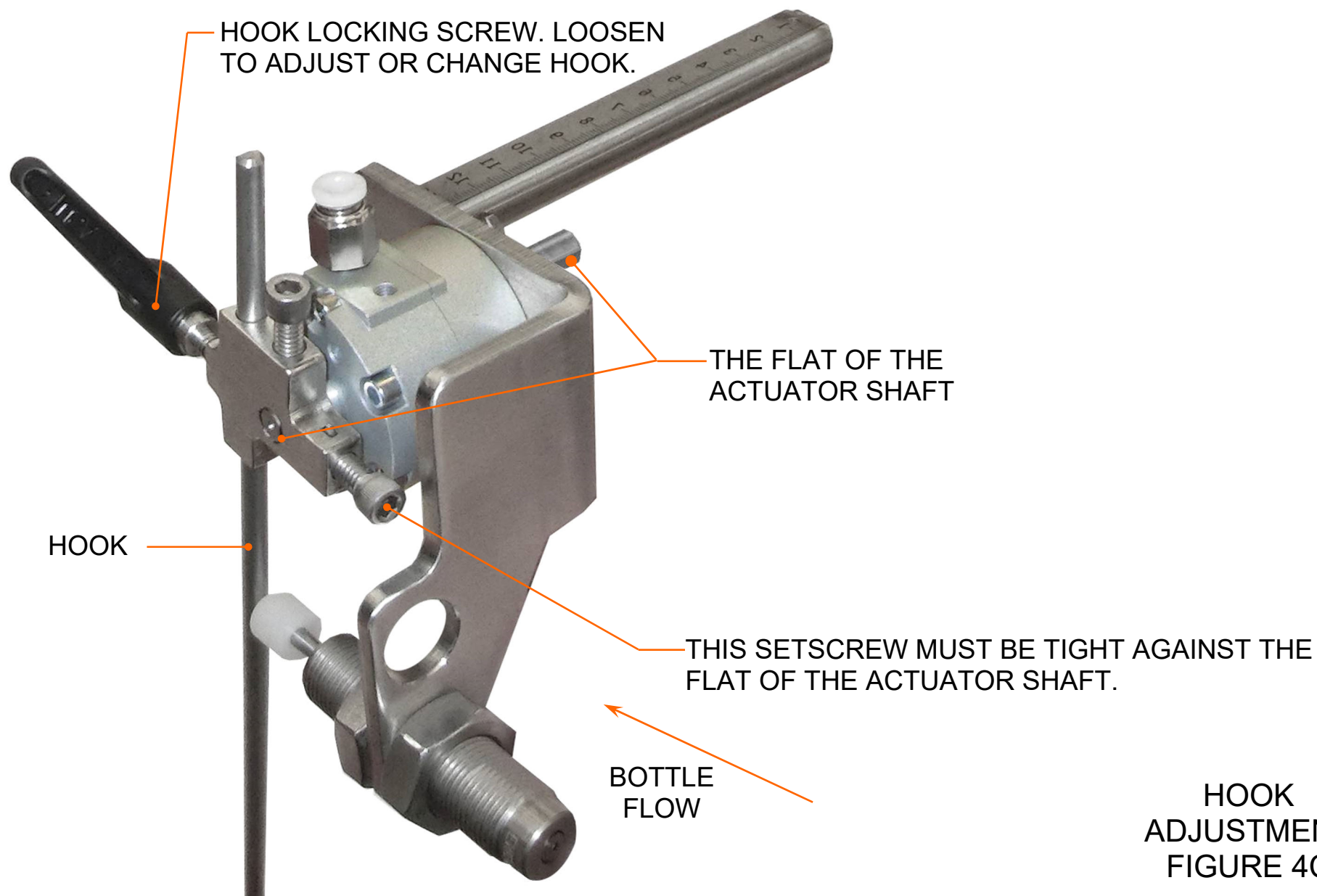
AIR PRESSURE SETTINGS

FIGURE 4B

BOTTLE SIZE	A (HOOK)	B (DISC AIR)
2 OZ ROUND	18 PSI	30 PSI
4 OZ ROUND	18 PSI	30 PSI
8 OZ ROUND	18 PSI	30 PSI
2 OZ JAR	18 PSI	30 PSI
4 OZ JAR	18 PSI	30 PSI
8 OZ JAR	18 PSI	30 PSI
12 OZ JAR	18 PSI	30 PSI
16 OZ JAR	18 PSI	30 PSI



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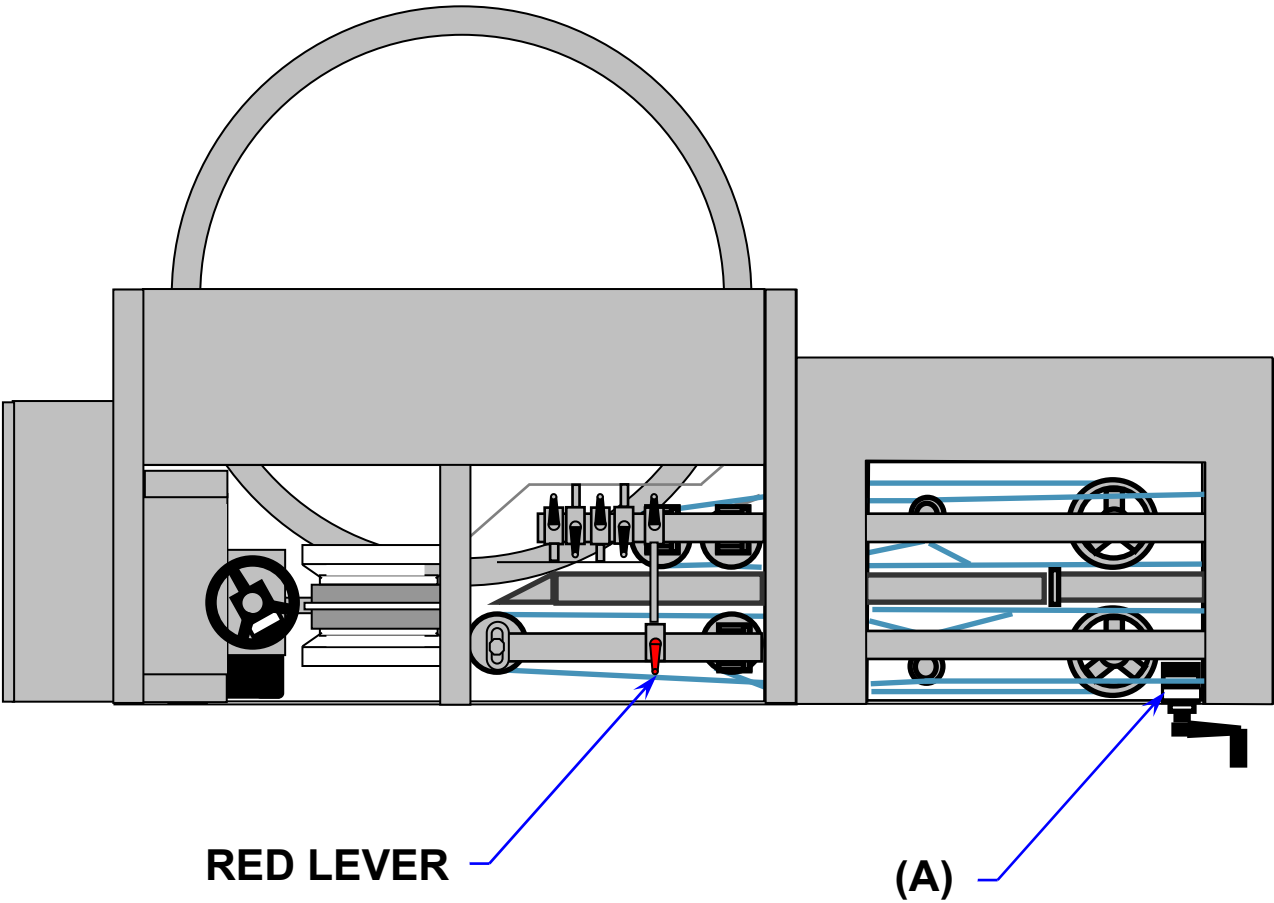


HOOK
ADJUSTMENT
FIGURE 4C

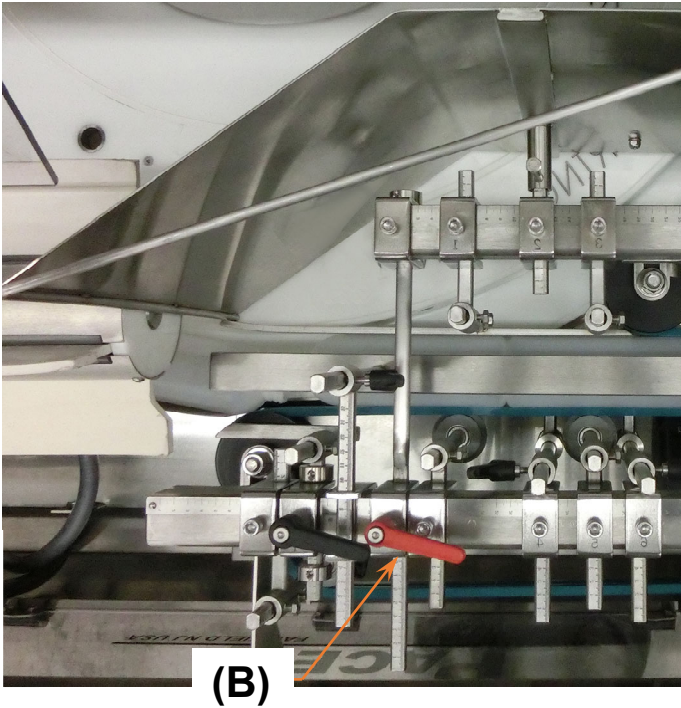


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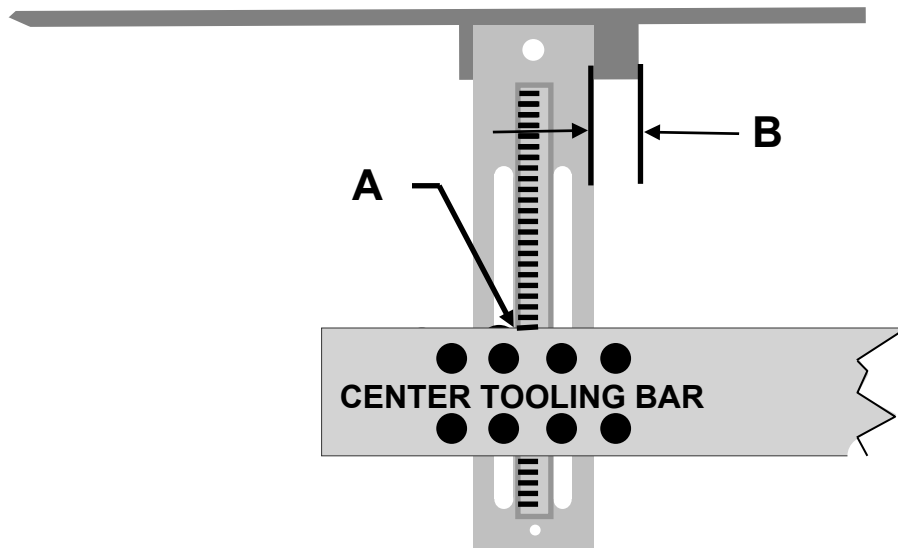
NOTE: LOOSEN RED TIE BRACKETS (INPUT END, TOP TOOLING BAR) BEFORE ADJUSTING BELT SEPARATION.



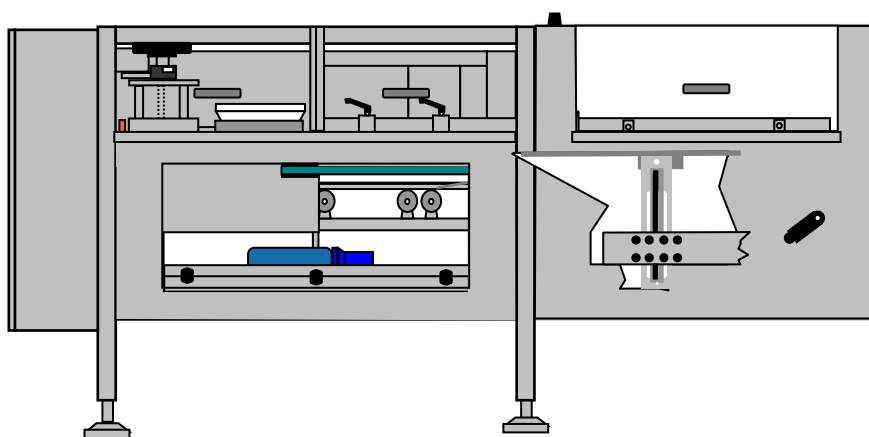
BELT SEPARATION		
FIGURE 5		
BOTTLE SIZE	A	B
2 OZ ROUND	00125	9.4
4 OZ ROUND	00203	8.4
8 OZ ROUND	00260	7.8
2 OZ JAR	00260	7.7
4 OZ JAR	00290	7.2
8 OZ JAR	00400	6.0
12 OZ JAR	00550	4.0
16 OZ JAR	00550	4.0



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CLOSE-UP OF CUTAWAY



FRONT VIEW: CUTAWAY ILLUSTRATION

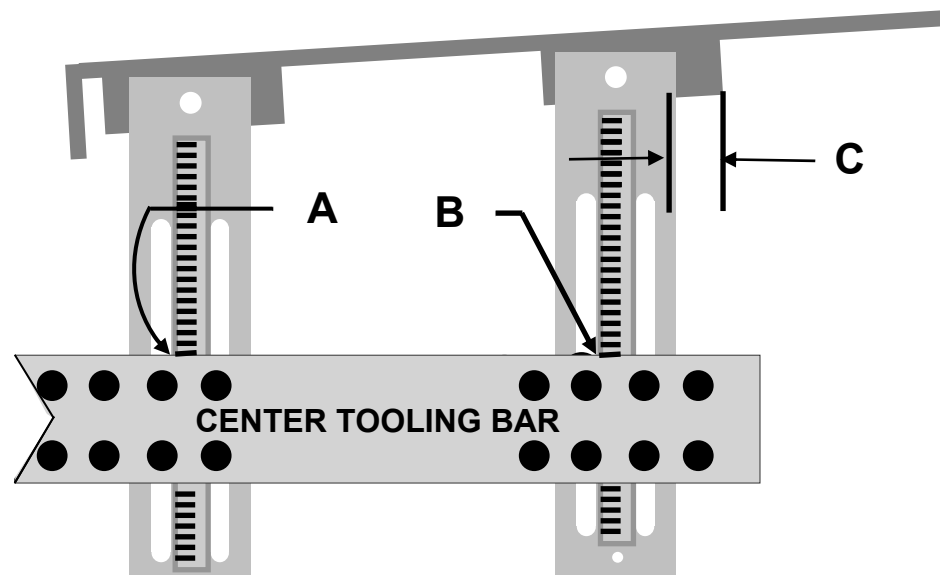
INFEED BOTTOM TOOLING

FIGURE 6

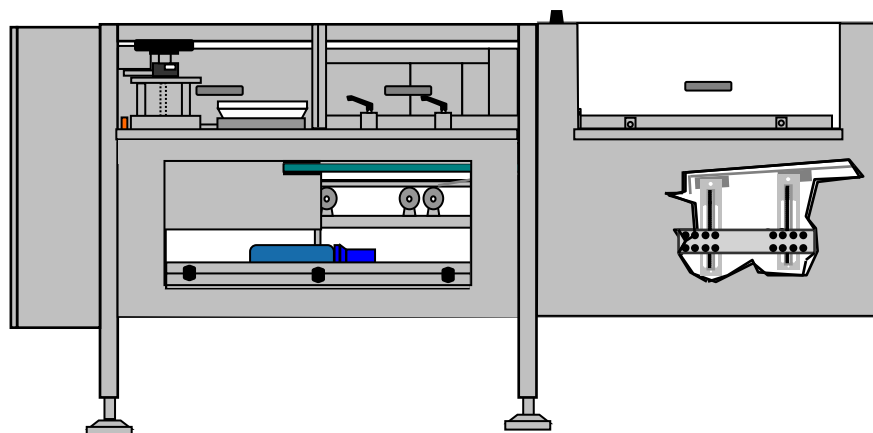
BOTTLE SIZE	A	B
2 OZ ROUND	9.3	0.6
4 OZ ROUND	9.1	0.6
8 OZ ROUND	8.9	0.6
2 OZ JAR	8.9	0.6
4 OZ JAR	8.9	0.6
8 OZ JAR	8.2	0.6
12 OZ JAR	7.0	0.6
16 OZ JAR	7.0	0.6



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CLOSE-UP OF CUTAWAY

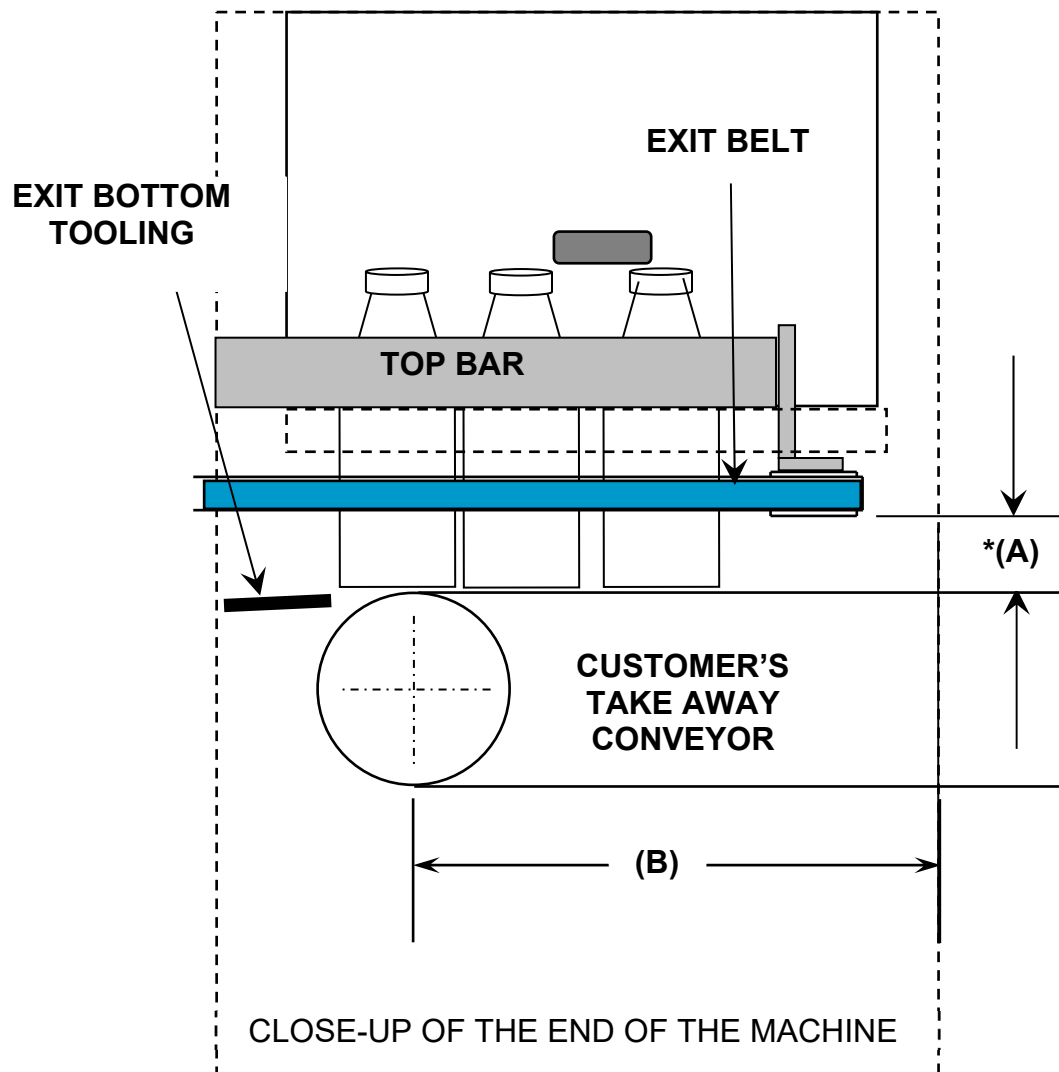


BOTTOM EXIT TOOLING

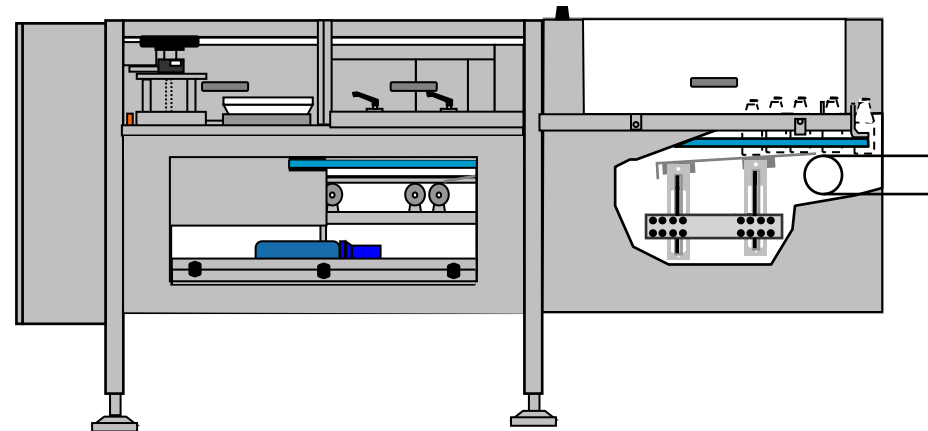
FIGURE 7

[illegible]

MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

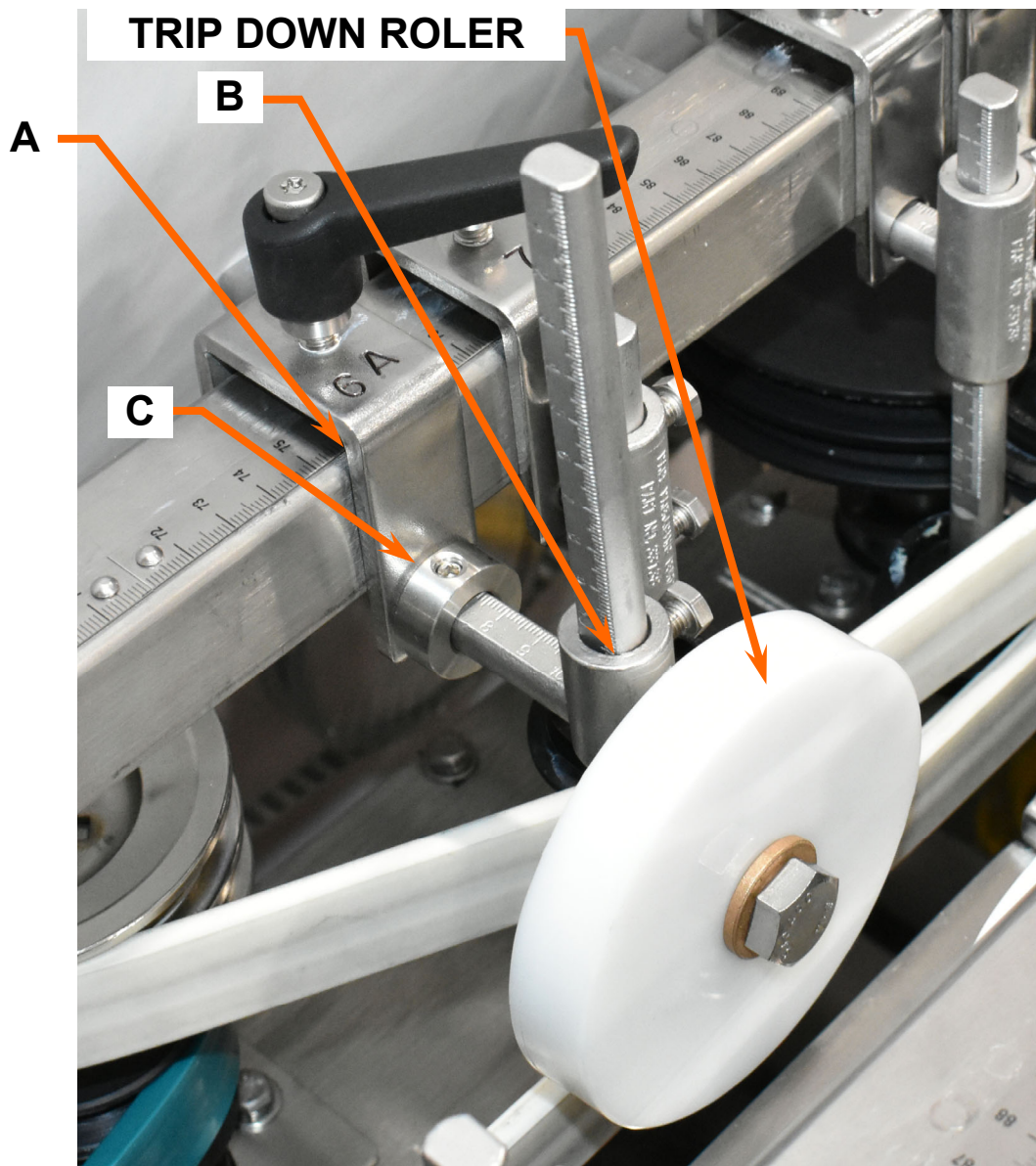


EXIT BELT CLEARANCE	
FIGURE 8A	
A	0.4 cm
B	20.0 cm (7 3/4")



FRONT VIEW: CUTAWAY ILLUSTRATION

MACHINE S/N:	4836
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TRIP DOWN ROLLER

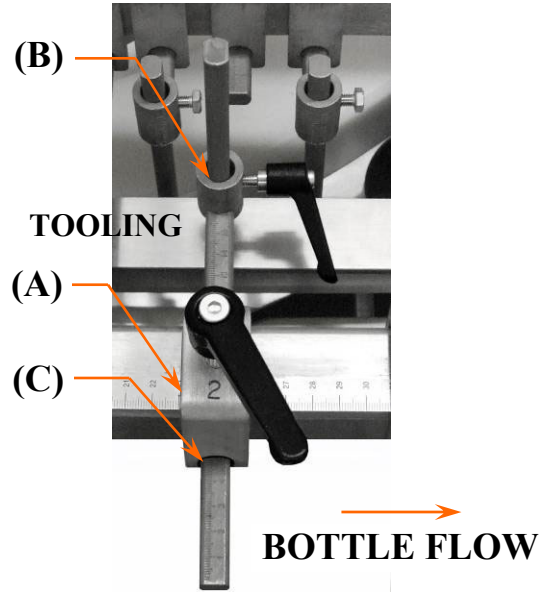
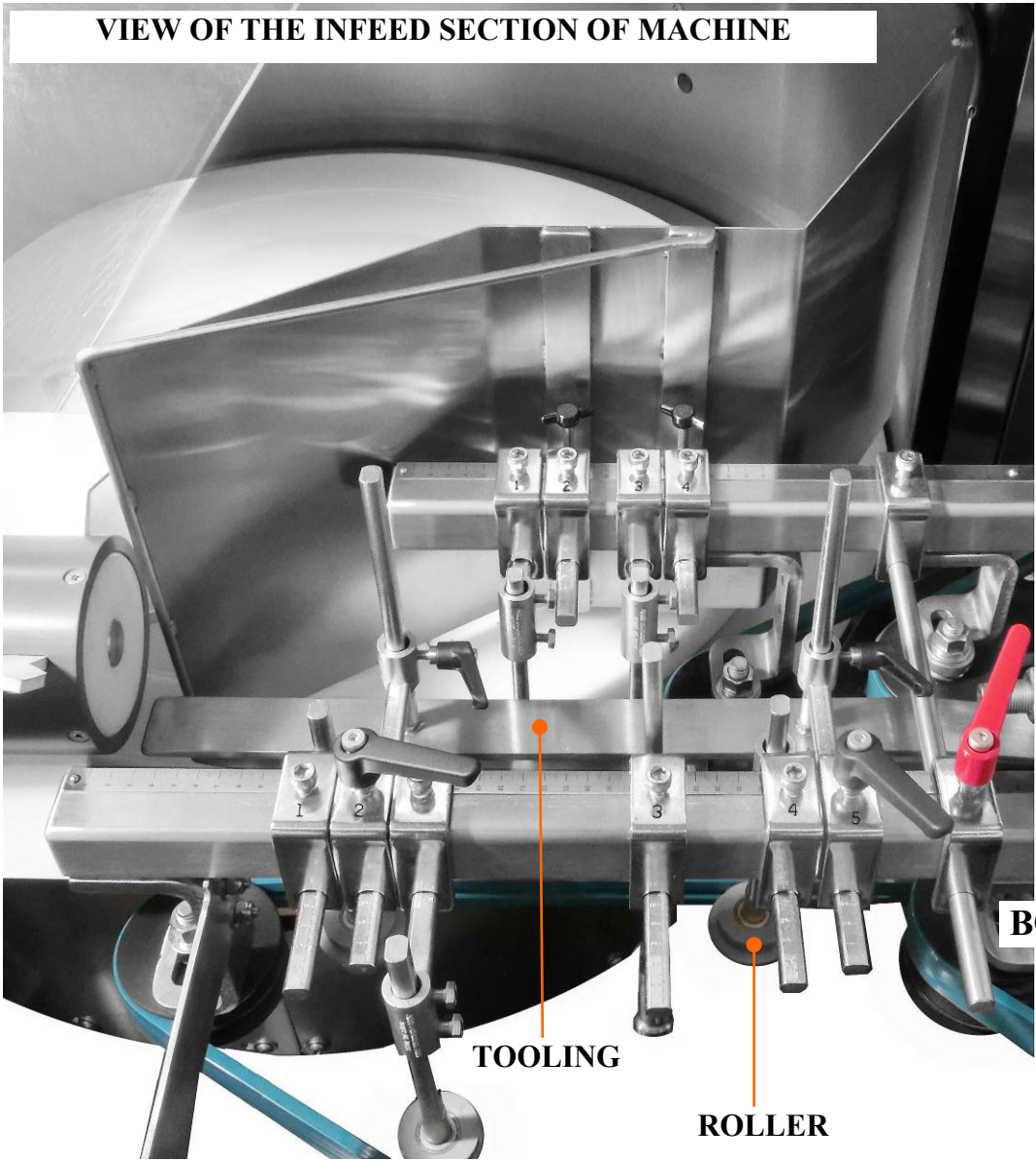
FIGURE 8B

BOTTLE SIZE	A	B	C	TRIP DOWN ROLLER
2 OZ ROUND	N/A	N/A	N/A	REMOVE
4 OZ ROUND	N/A	N/A	N/A	REMOVE
8 OZ ROUND	N/A	N/A	N/A	REMOVE
2 OZ JAR	73.0	10.5	6.3	INSTALL
4 OZ JAR	N/A	N/A	N/A	REMOVE
8 OZ JAR	N/A	N/A	N/A	REMOVE
12 OZ JAR	N/A	N/A	N/A	REMOVE
16 OZ JAR	N/A	N/A	N/A	REMOVE

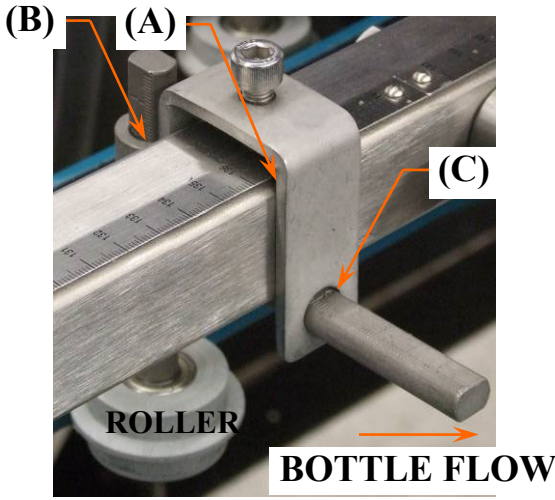


MACHINE S/N:	4836
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VIEW OF THE INFEED SECTION OF MACHINE

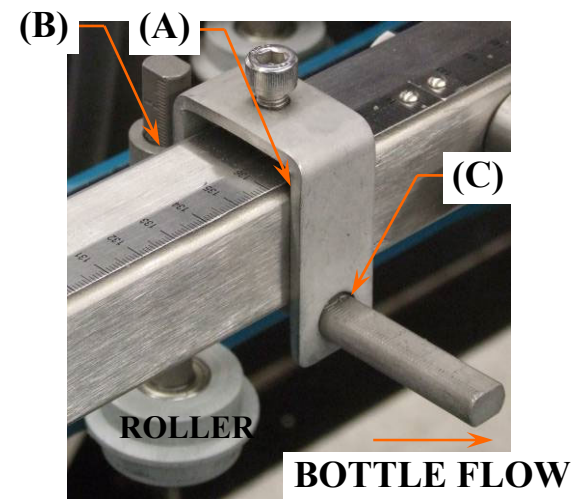
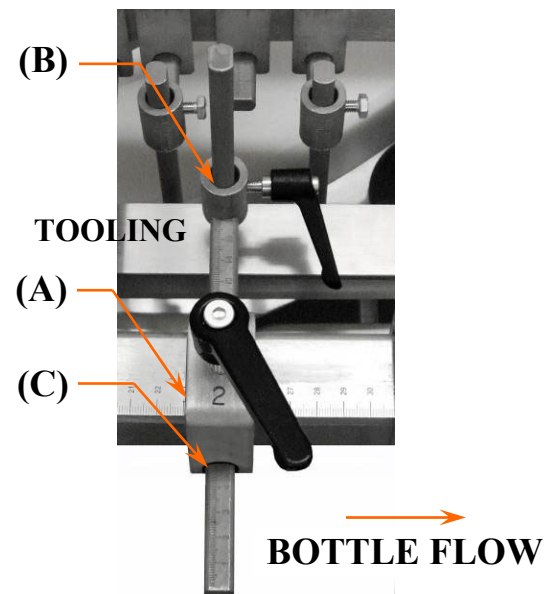


DIMENSION	MOVEMENT DIRECTION
DIMENSION "A"	LEFT TO RIGHT
DIMENSION "B"	UP OR DOWN



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TOP BAR SETTINGS										
FIGURE 9A										
BOTTLE SIZE: MAIN FOR ALL BOTTLES										
OPERATOR'S SIDE						NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C		CLP	TYP	A	B	C
1	IF	10.6	2.9	4.5		1	TL	0.7	0.9	X
2						2	DD	3.5	X	0.5
3						3	TL	10.5	0.9	X
4						4	DD	19.8	X	0.7
5	IF	34.4	2.9	4.5		5	HS	39.5	2.7	4.5
6						6	HS	59.6	2.7	4.4
7						7	EX	79.7	2.3	5.5
8	HS	51.6	2.7	4.3		8	HS	90.1	2.7	4.5
9	HS	65.6	2.7	4.6		9	EX	93.4	2.3	4.2
10	HS	81.0	2.7	4.3		10	EX	100.5	2.3	4.6
11	EX	95.8	2.3	5.5		11	EX	111.0	2.3	4.7
12	HS	104.5	2.7	4.2		12				
13	EX	112.5	2.3	4.4		13				
14	EX	120.0	2.3	4.2		14				
15	EX	138.6	2.3	4.5		15				
16						16				
17						17				
18						18				
19						19				
20						20				
21						21				
22						22				
23						23				
24						24				

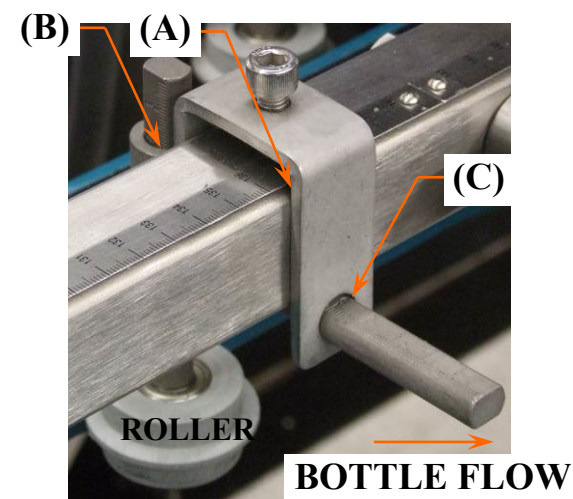
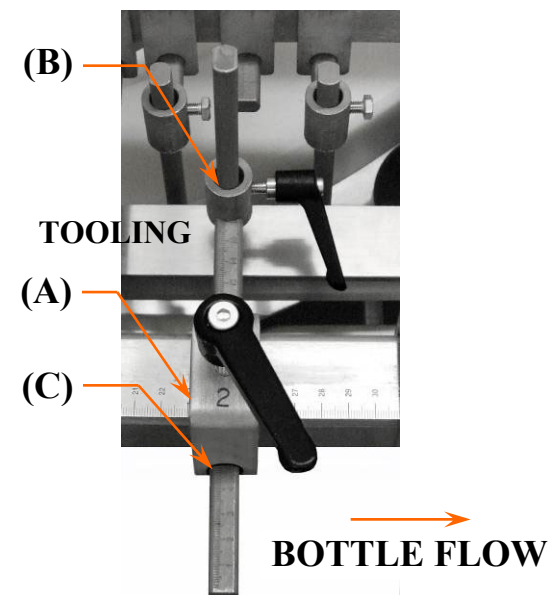


CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

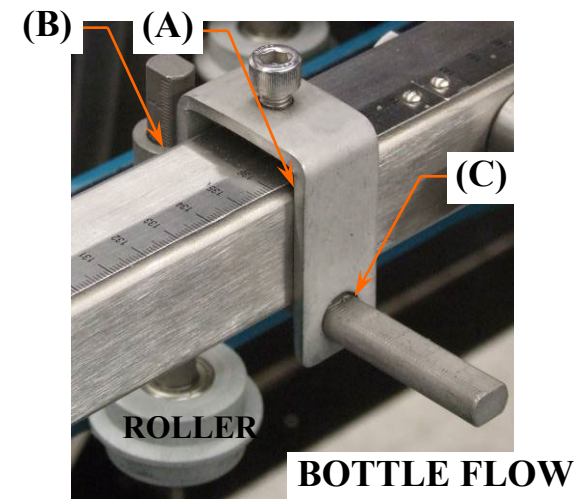
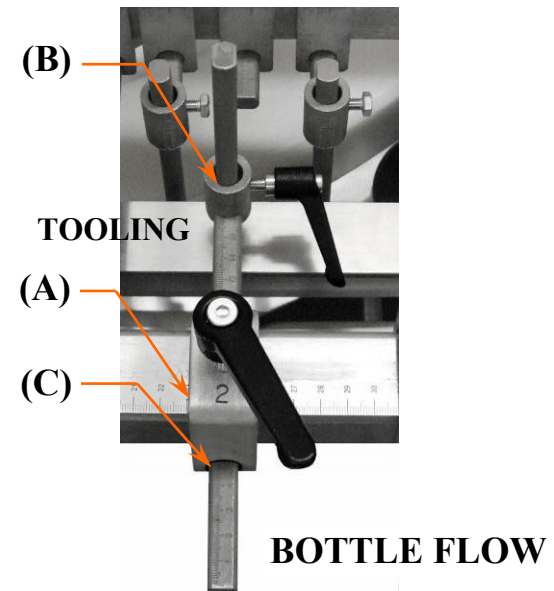
TOP BAR SETTINGS										
FIGURE 9B										
BOTTLE SIZE: 2 OZ ROUND										
OPERATOR'S SIDE						NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C		CLP	TYP	A	B	C
1						1				
2	TL	13.6	5.4	5.7		2				
3	TL	20.6	6.8	5.5		3				
4	TL	27.7	6.8	5.5		4				
5						5				
6	TL	37.6	6.9	5.5		6				
7	TL	48.4	7.5	6.1		7				
8						8				
9						9				
10						10				
11						11				
12						12				
13						13				
14						14				
15						15				
16						16				
17						17				
18						18				
19						19				
20						20				
21						21				
22						22				
23						23				
24						24				



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

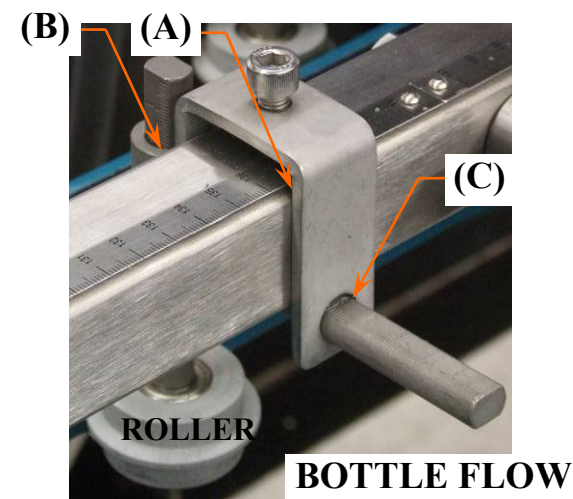
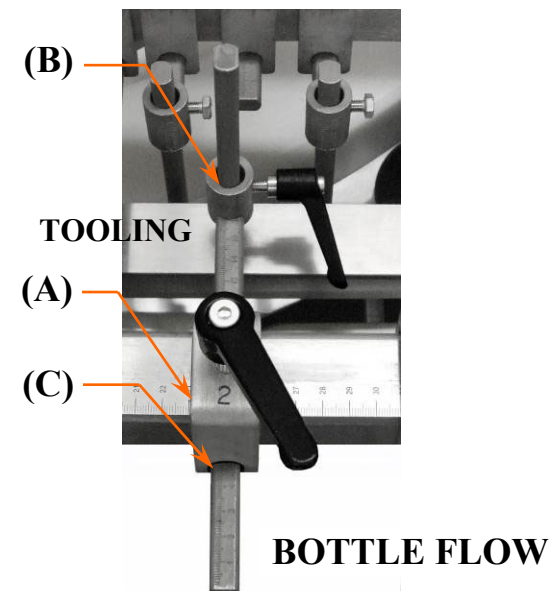
TOP BAR SETTINGS									
FIGURE 9C									
BOTTLE SIZE: 4 OZ ROUND									
OPERATOR'S SIDE					NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C	CLP	TYP	A	B	C
1					1				
2	TL	13.6	5.6	4.8	2				
3	TL	20.5	6.8	5.5	3				
4	TL	27.7	6.8	5.5	4				
5					5				
6	TL	37.8	6.9	5.5	6				
7	TL	48.6	7.5	5.5	7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				
17					17				
18					18				
19					19				
20					20				
21					21				
22					22				
23					23				
24					24				



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

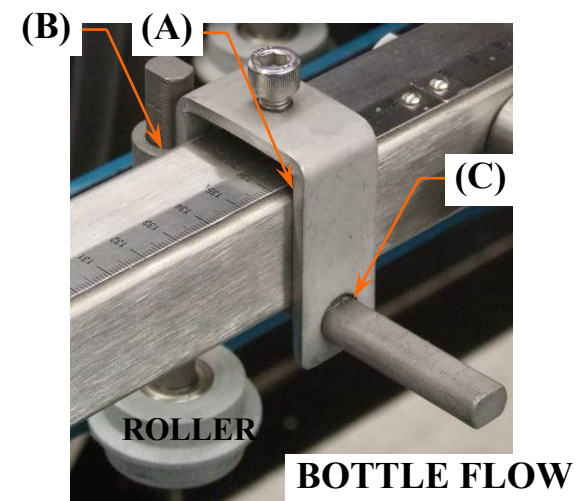
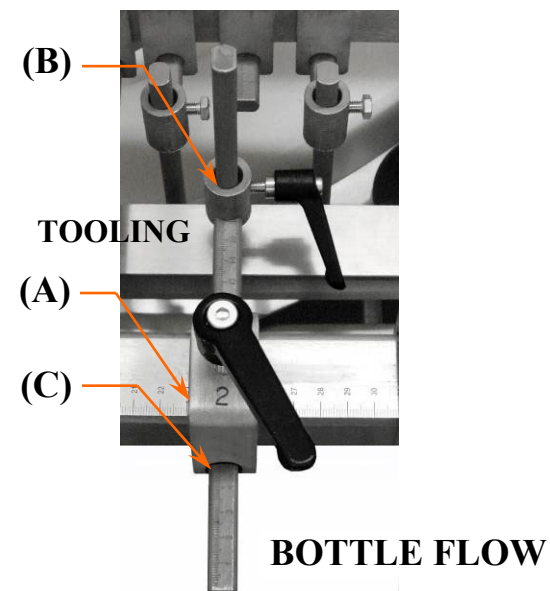
TOP BAR SETTINGS										
FIGURE 9D										
BOTTLE SIZE: 8 OZ ROUND										
OPERATOR'S SIDE						NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C		CLP	TYP	A	B	C
1						1				
2	TL	13.6	6.5	4.9		2				
3	TL	20.6	6.8	5.5		3				
4	TL	27.7	6.8	5.5		4				
5						5				
6	TL	38.3	6.8	5.5		6				
7	TL	48.7	8.4	5.5		7				
8						8				
9						9				
10						10				
11						11				
12						12				
13						13				
14						14				
15						15				
16						16				
17						17				
18						18				
19						19				
20						20				
21						21				
22						22				
23						23				
24						24				



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

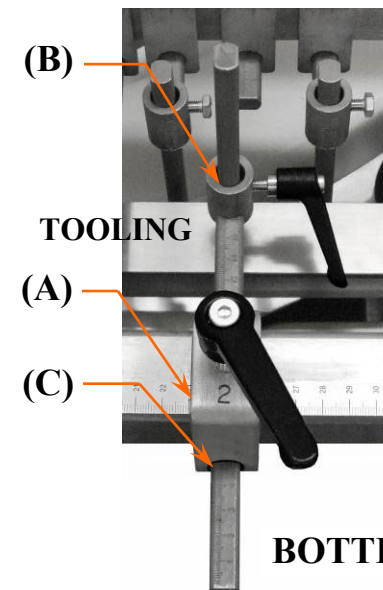
TOP BAR SETTINGS										
FIGURE 9E										
BOTTLE SIZE: 2 OZ JAR										
OPERATOR'S SIDE						NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C		CLP	TYP	A	B	C
1						1				
2	TL	13.6	7.0	5.0		2				
3	TL	20.5	7.5	5.5		3				
4	TL	27.7	7.5	5.5		4				
5						5				
6	TL	38.3	7.4	4.9		6				
7	TL	48.8	9.0	5.2		7				
8						8				
9						9				
10						10				
11						11				
12						12				
13						13				
14						14				
15						15				
16						16				
17						17				
18						18				
19						19				
20						20				
21						21				
22						22				
23						23				
24						24				



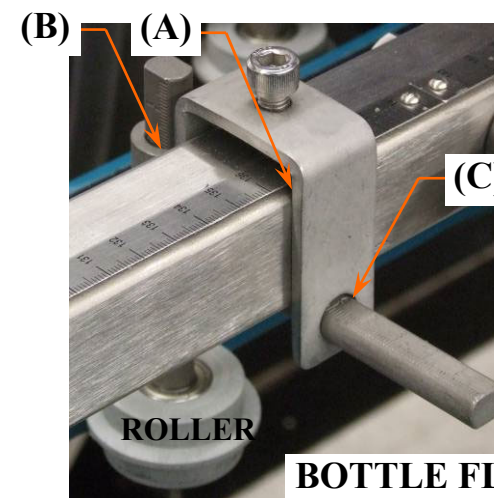
MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

TOP BAR SETTINGS									
FIGURE 9F									
BOTTLE SIZE: 4 OZ JAR									
OPERATOR'S SIDE					NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C	CLP	TYP	A	B	C
1					1				
2	TL	13.6	7.1	4.5	2				
3	TL	20.6	7.5	5.5	3				
4	TL	27.7	7.5	5.5	4				
5					5				
6	TL	38.1	7.4	5.5	6				
7	TL	48.6	9.1	5.0	7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				
17					17				
18					18				
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21					21				
22					22				
23					23				
24					24				



BOTTLE FLOW



BOTTLE FLOW



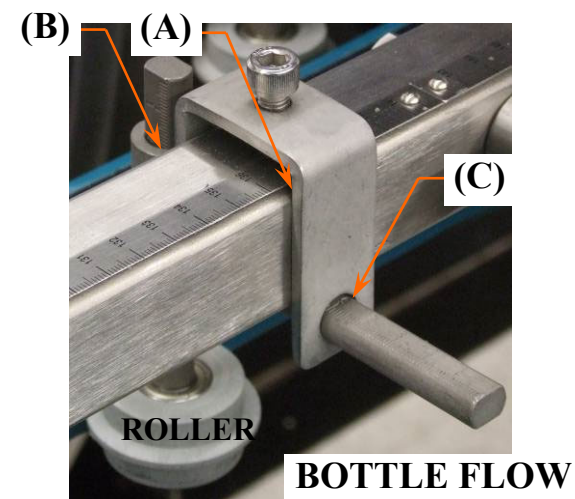
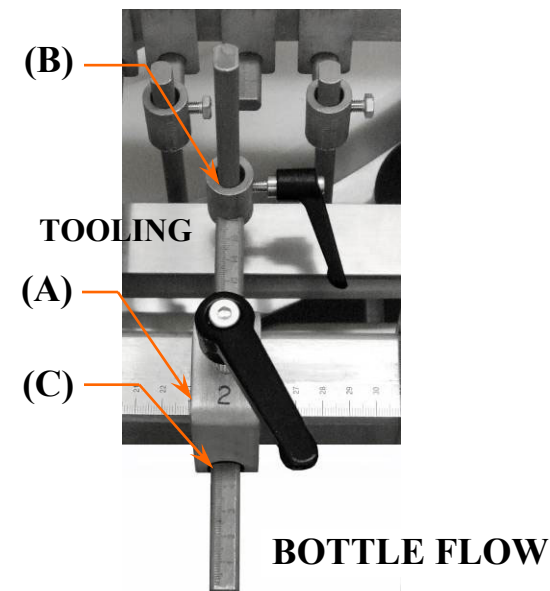
MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

TOP BAR SETTINGS										
FIGURE 9G										
BOTTLE SIZE: 8 OZ JAR										
OPERATOR'S SIDE					NON-OPERATOR'S SIDE					
CLP	TYP	A	B	C	CLP	TYP	A	B	C	
1					1					
2	TL	13.6	6.3	4.5	2					
3	TL	20.5	4.9	5.5	3					
4	TL	27.7	4.9	5.5	4					
5					5					
6	TL	37.7	5.1	5.2	6					
7	TL	48.7	8.9	5.0	7					
8					8					
9					9					
10					10					
11					11					
12					12					
13					13					
14					14					
15					15					
16					16					
17					17					
18					18					
19					19					
20					20					
21					21					
22					22					
23					23					
24					24					

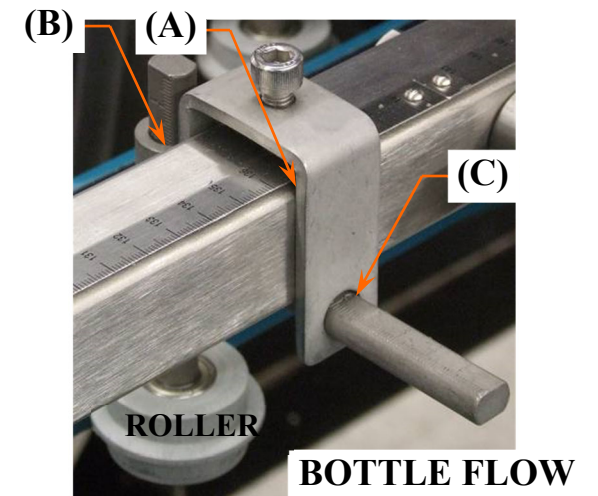
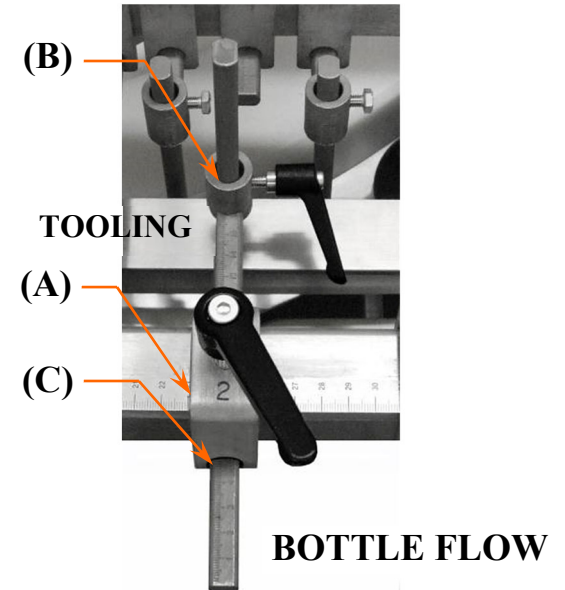


MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21



CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

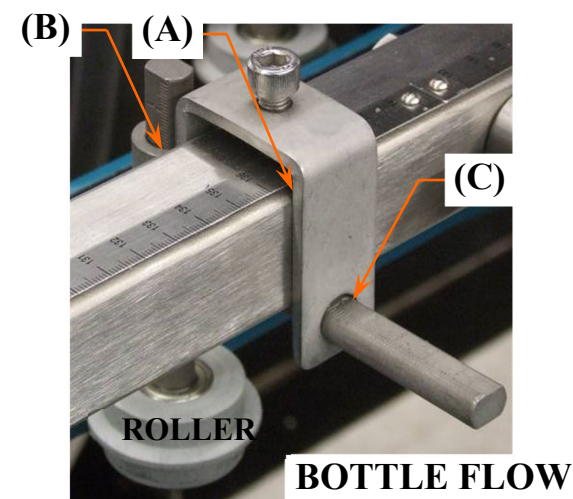
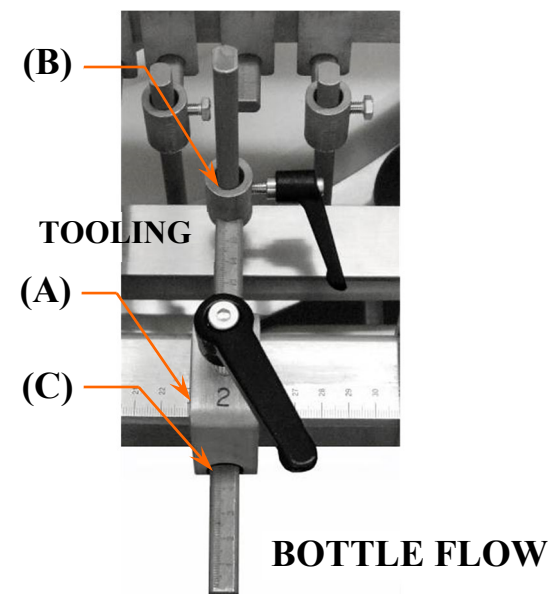
TOP BAR SETTINGS									
FIGURE 9I									
BOTTLE SIZE: 12 OZ JAR									
OPERATOR'S SIDE					NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C	CLP	TYP	A	B	C
1					1				
2	TL	13.8	8.1	2.8	2				
3	TL	20.5	4.9	5.5	3				
4	TL	27.7	4.9	5.5	4				
5					5				
6	TL	37.5	4.9	3.8	6				
7	TL	48.8	10.3	3.4	7				
8					8				
9					9				
10					10				
11					11				
12					12				
13					13				
14					14				
15					15				
16					16				
17					17				
18					18				
19					19				
20					20				
21					21				
22					22				
23					23				
24					24				



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

TOP BAR SETTINGS										
FIGURE 9J										
BOTTLE SIZE: 16 OZ JAR										
OPERATOR'S SIDE						NON-OPERATOR'S SIDE				
CLP	TYP	A	B	C		CLP	TYP	A	B	C
1						1				
2	TL	13.8	8.1	2.8		2				
3	TL	20.5	4.9	5.5		3				
4	TL	27.7	4.9	5.5		4				
5						5				
6	TL	37.5	4.9	3.8		6				
7	TL	48.8	10.3	3.4		7				
8						8				
9						9				
10						10				
11						11				
12						12				
13						13				
14						14				
15						15				
16						16				
17						17				
18						18				
19						19				
20						20				
21						21				
22						22				
23						23				
24						24				



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

CLAMP TYPE: IF=INFEED BELT
CLAMP TYPE: TL=TOOLING
CLAMP TYPE: DD=DISC DOOR
CLAMP TYPE: EX=EXIT BELT
CLAMP TYPE: HS=HIGH SPEED BELT
CLAMP TYPE: SSD=SLOW SPEED BELT

SPEED SETTINGS (HERTZ SETTINGS)

DO NOT GO BELOW 12 HZ

FIGURE 10A

BOTTLE SIZE@BPM	HOPPER		DISC		BUMPER		SUU		DISC AIR
	HIGH SPEED		HIGH SPEED		HIGH SPEED	BACK-UP SPEED	HIGH SPEED	BACK-UP SPEED	
2 OZ ROUND@40 BPM	17.0		20.0		30.0	30.0	25.0	25.0	1
4 OZ ROUND@40 BPM	20.0		20.0		30.0	30.0	34.0	34.0	1
8 OZ ROUND@40 BPM	18.0		21.0		30.0	30.0	39.0	39.0	1
2 OZ JAR@40 BPM	15.0		12.0		48.0	48.0	13.5	13.5	1
4 OZ JAR@40 BPM	13.0		12.0		30.0	30.0	23.0	23.0	1
8 OZ JAR@40 BPM	18.0		18.0		30.0	30.0	24.0	24.0	1
12 OZ JAR@40 BPM	18.0		25.0		40.0	40.0	23.5	23.5	1
16 OZ JAR@40 BPM	20.0		23.0		40.0	40.0	25.0	25.0	1



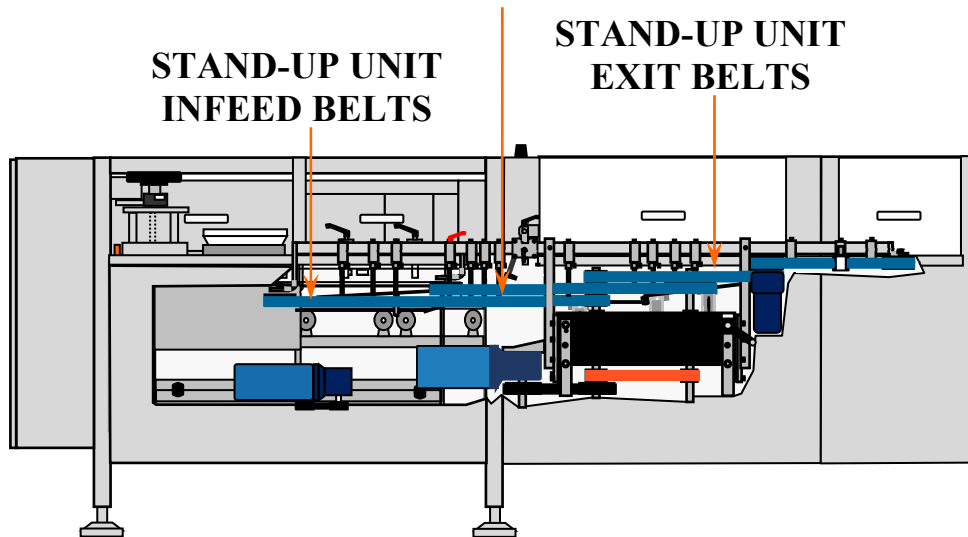
MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

***WARNING:**

THE SPECIFICATIONS ON THIS PAGE ARE MEANT FOR REFERENCE ONLY TO ASSIST IN CUSTOMER CONVEYOR INTEGRATION.

THE CUSTOMER IS ADVISED BY PACE TO INFORM HIS PERSONNEL THAT THEY ARE NOT TO REACH INTO THE MACHINE AND OBTAIN SPEED READINGS WHILE THE MACHINE IS IN OPERATION.

**STAND-UP UNIT
HIGH SPEED BELTS**



*** SPEED SETTINGS (FEET PER MINUTE)**

FIGURE 10C (REFERENCE ONLY!)

BOTTLE SIZE	INFED (FPM)	HIGH SPEED (FPM)	EXIT (FPM)
2 OZ ROUND@40 BPM	13.5	60.2	18.5
4 OZ ROUND@40 BPM	17.7	83.2	26.7
8 OZ ROUND@40 BPM	20.8	96.6	30.9
2 OZ JAR@40 BPM	7.2	33.2	11.4
4 OZ JAR@40 BPM	9.6	45.6	14.3
8 OZ JAR@40 BPM	12.2	56.4	18.3
12 OZ JAR@40 BPM	12.5	57.6	18.7
16 OZ JAR@40 BPM	13.3	61.8	19.2



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CUSTOMER:	HOME CHEF
DATE:	2/4/21

DRIVES ACCEL/ DECEL TIMERS

FIGURE 10D

NOTE: SOME OF THE DEVICES LISTED ON THIS PAGE MAY NOT APPLY TO THE CUSTOMER'S PARTICULAR APPLICATION.

<u>DRIVES ACCEL TIMERS</u>	<u>TIME IN SECOND (S):</u>
HOPPER ELEVATOR ACCEL TIME:	2.0
DISC ACCEL TIME:	2.0
BUMPER ACCEL TIME:	1.0
SUU ACCEL TIME:	1.0
<u>DRIVES DECEL TIMERS</u>	<u>TIME IN SECOND (S):</u>
HOPPER ELEVATOR DECEL TIME:	1.0
DISC DECEL TIME:	1.0
BUMPER DECEL TIME:	2.0
SUU DECEL TIME:	2.0

DRIVE OVERCURRENT SETTINGS

HOPPER	DISC	BUMPER	SUU					
3.0 A	3.0 A	1.9 A	3.0 A					



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

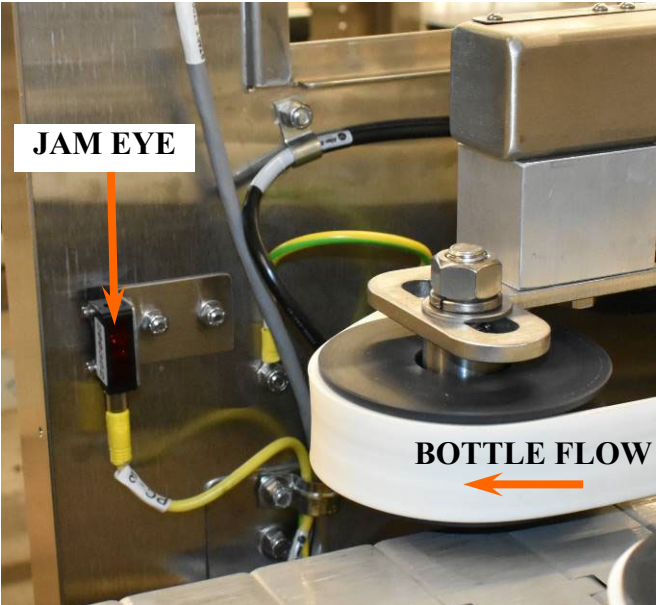
TIMERS

FIGURE 10F

BOTTLE SIZE	BPM	DOWNSTREAM BACK-UP PHOTO EYE BLOCKED:	DOWNSTREAM BACK-UP PHOTO EYE UNBLOCKED:	DISC DEMAND PHOTO EYE BLOCKED:	DISC DEMAND PHOTO EYE UNBLOCKED:	MACHINE JAM TIMER:	EXIT JAM TIMER:	STOP DELAY TIMER:
2 OZ ROUND	40	2.0	0.5	0.2	2.5	17.0	2.0	11.0
4 OZ ROUND	40	2.0	0.5	0.2	1.5	17.0	2.0	8.0
8 OZ ROUND	40	2.0	0.5	0.5	1.4	17.0	2.0	7.5
2 OZ JAR	40	2.0	0.5	0.2	1.8	17.0	2.0	21.0
4 OZ JAR	40	2.0	0.5	0.2	2.0	17.0	2.0	18.0
8 OZ JAR	40	2.0	0.5	0.3	0.8	17.0	2.0	11.5
12 OZ JAR	40	2.0	0.5	0.4	0.9	17.0	2.0	11.5
16 OZ JAR	40	2.0	0.5	0.4	0.8	17.0	2.0	7.0



MACHINE S/N:	4836
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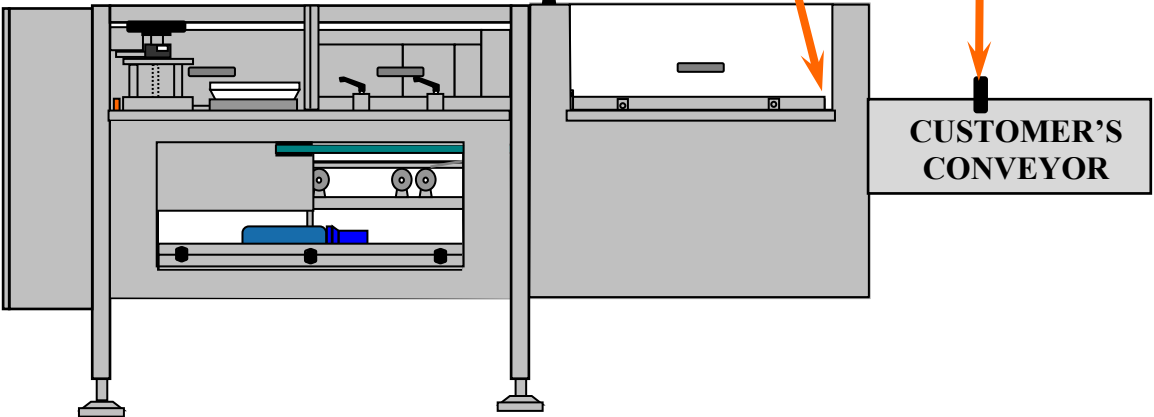
JAM EYE

BOTTLE FLOW

**JAM EYE
VIEW OF THE EXIT END OF THE MACHINE**

DOWN STREAM BACK-UP EYE

BOTTLE FLOW



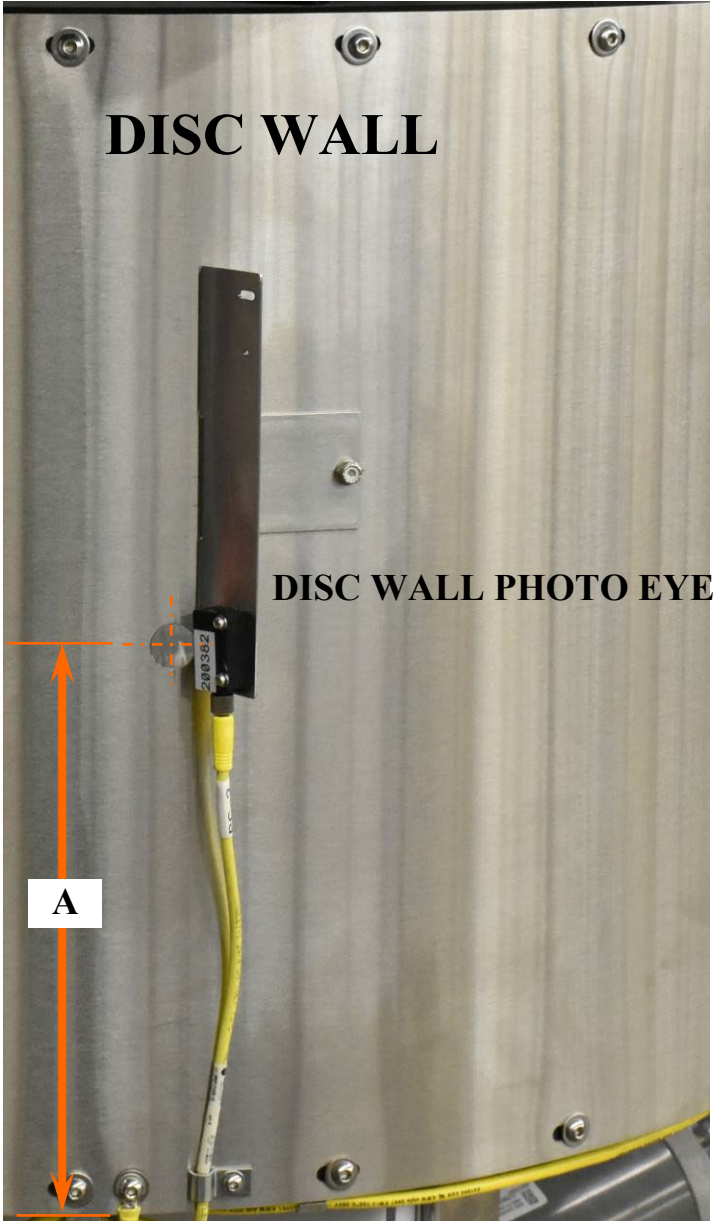
MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

PHOTO EYE REFERENCE	
FIGURE 10E	
PHOTO EYE	PART NUMBER
DISC EYE	200384
JAM EYE	200384
DOWN STREAM BACK-UP EYE	200382



DISC EYE

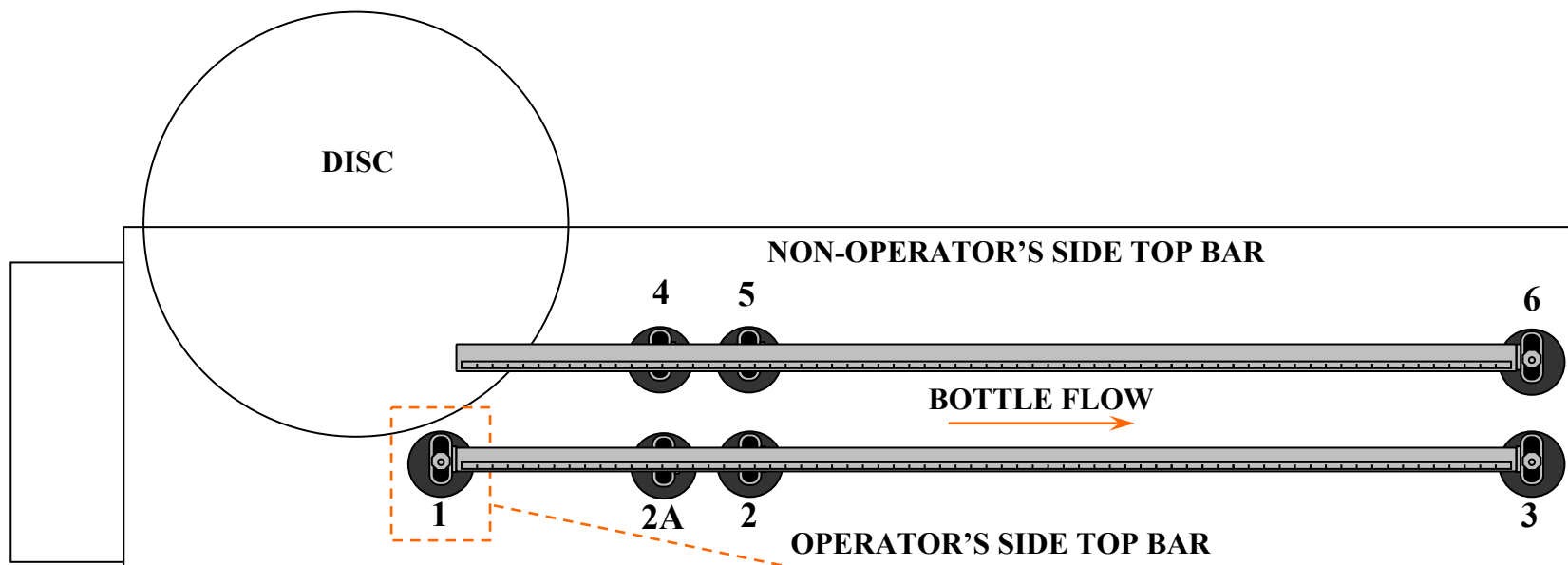
DISC WALL



DISC WALL PHOTO EYE HOLE	
FIGURE 10F	
BOTTLE SIZE	A
ALL	10 5/8"



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

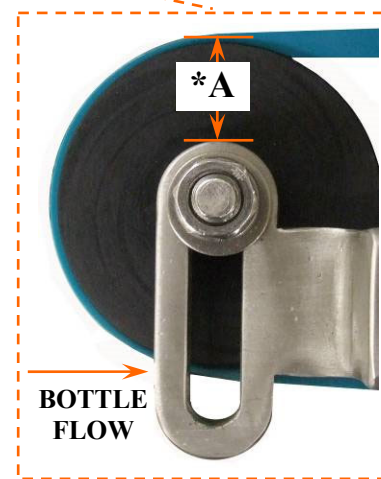


IDLER PULLEY MEASUREMENTS

FIGURE 11A

PULLEY(S) TOP/BOTTOM	A (CM)
1	2.8
2	2.8
2A (OPTIONAL)	N/A
3	1.2
4	2.8
5	2.8
6	1.2

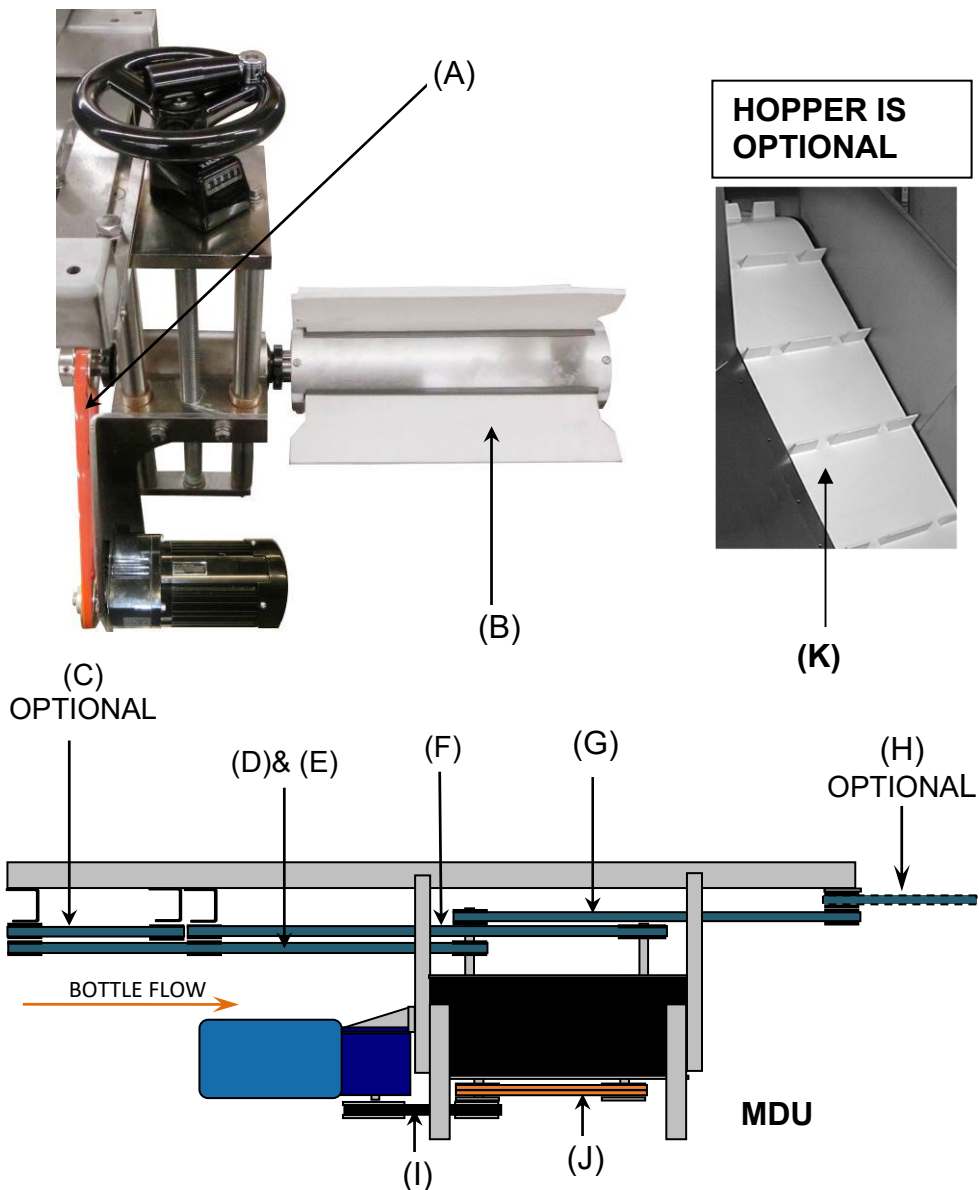
**MEASUREMENTS ARE MADE FROM THE EDGE OF THE SHEAVE TO THE EDGE OF THE PERCH.*



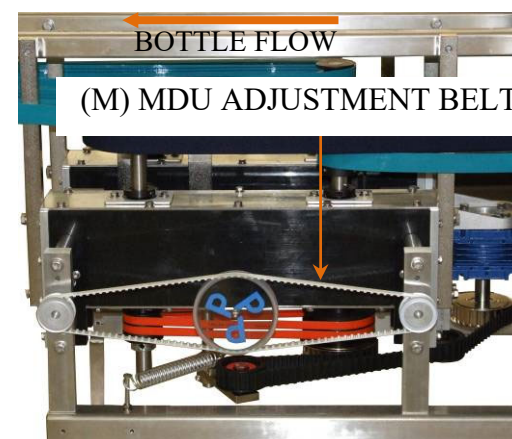
TOP BAR IDLERS



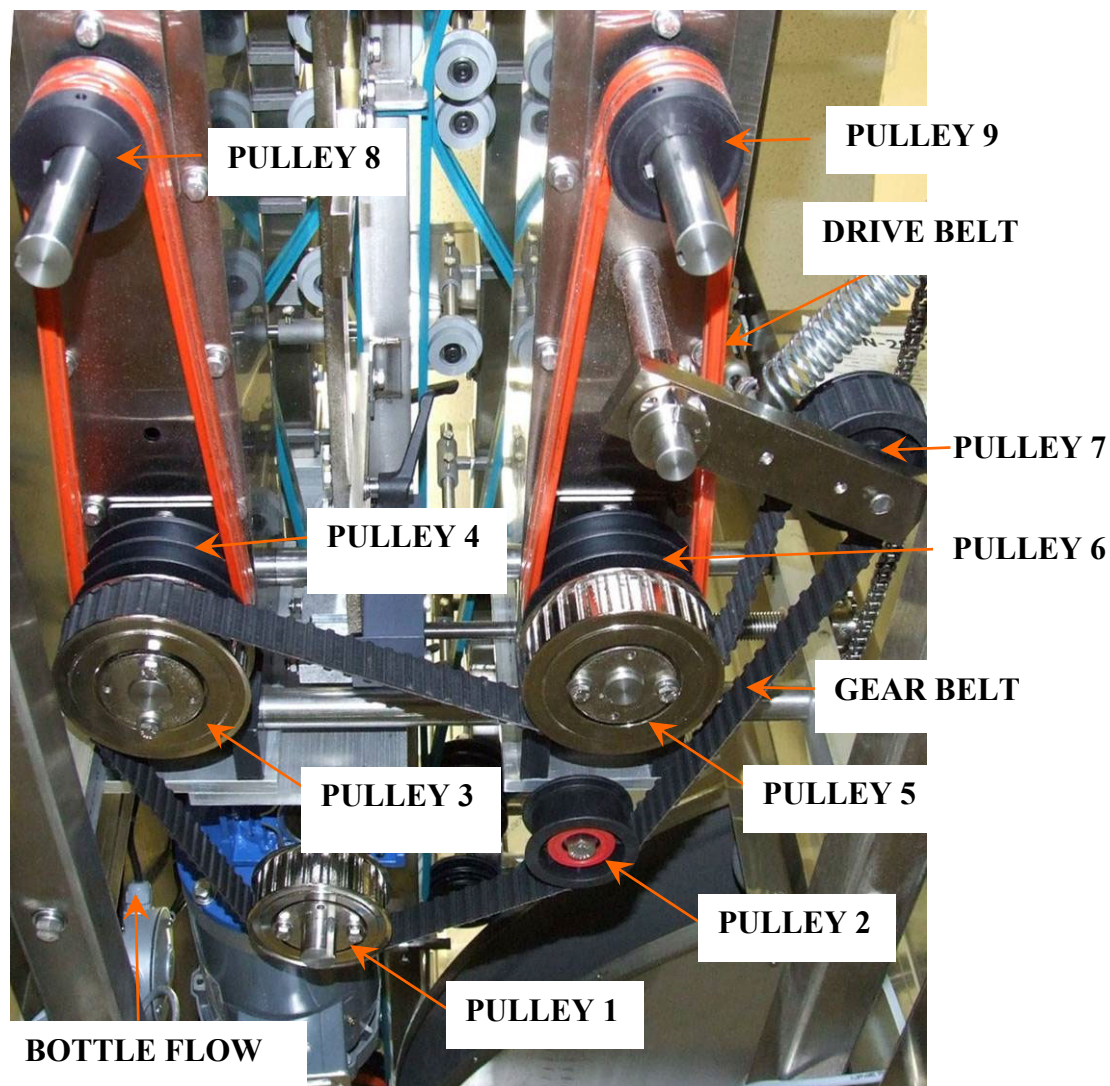
MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21



BELT DOCUMENTATION		
FIGURE 11B		
BELT NAME	BELT TYPE	PART NO.
(A) ROTARY BUMPER BELT	SINGLE A	35954
(B) ROTARY BUMPER BLADES	WHITE	34886
(C) UPPER INFEED BELT (OPERATOR'S SIDE) OPTIONAL	N/A	N/A
(D) LOWER INFEED BELT (OPERATOR'S SIDE)	TWIN A	35402
(E) INFEED BELT (NON-OPERATOR'S SIDE)	TWIN A	35403
(F) HIGH SPEED BELT	TWIN A WHITE	300754
(G) EXIT	TWIN A WHITE	300752
(H) SLOW SPEED DISCHARGE	N/A	N/A
(I) GEAR BELT	D660H100	31191
(J) DRIVE BELT	SINGLE A	35536
(K) HOPPER ELEVATOR BELT	2" CLEAT	46984
(L) DISC DRIVE BELT	A40	32556
(M) MDU ADJUSTMENT BELT	473L050	38546



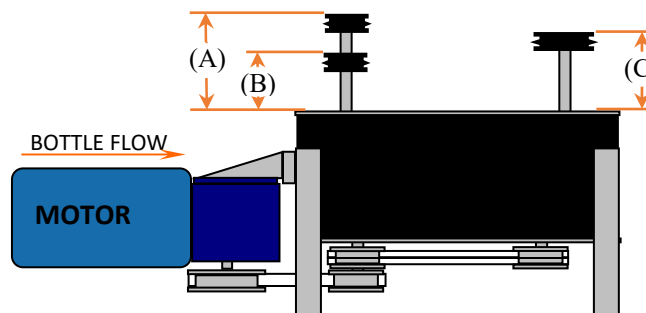
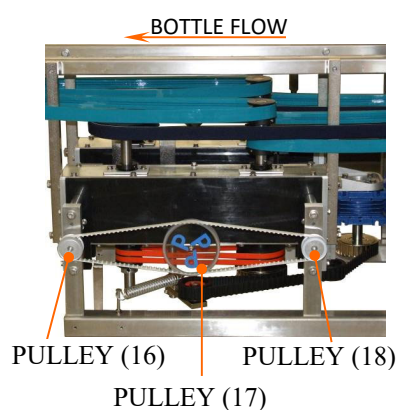
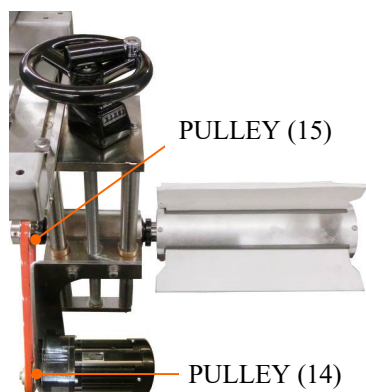
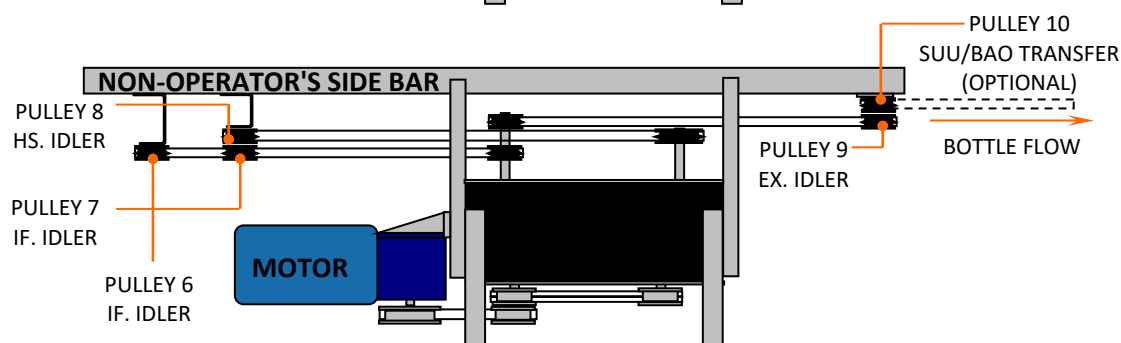
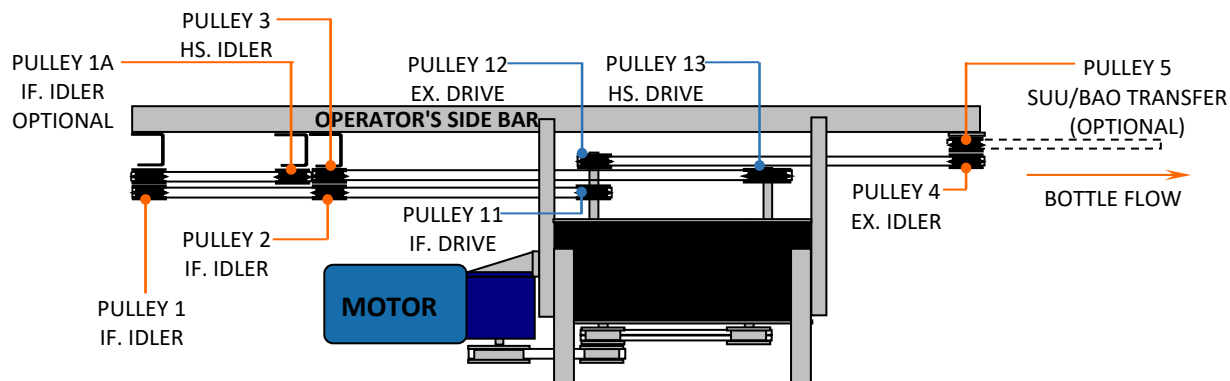
DRIVE BELT RUN (FIGURE 12) **VIEWED FROM UNDERNEATH THE MACHINE**



DRIVE PULLEY LAYOUT PAGE		
FIGURE 12		
PULLEY NAME	DESC.	PART NO.
PULLEY(1)	24HH100	30778
PULLEYS (2)&(7)	IDLER	34656
PULLEYS (3)&(5)	28HH100	30781
PULLEYS (4)&(6)	2AK46	36810
PULLEYS (8)&(9)	2AK25	36806
GEAR BELT	D660H100	31191
DRIVE BELT	SINGLE A	35536



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

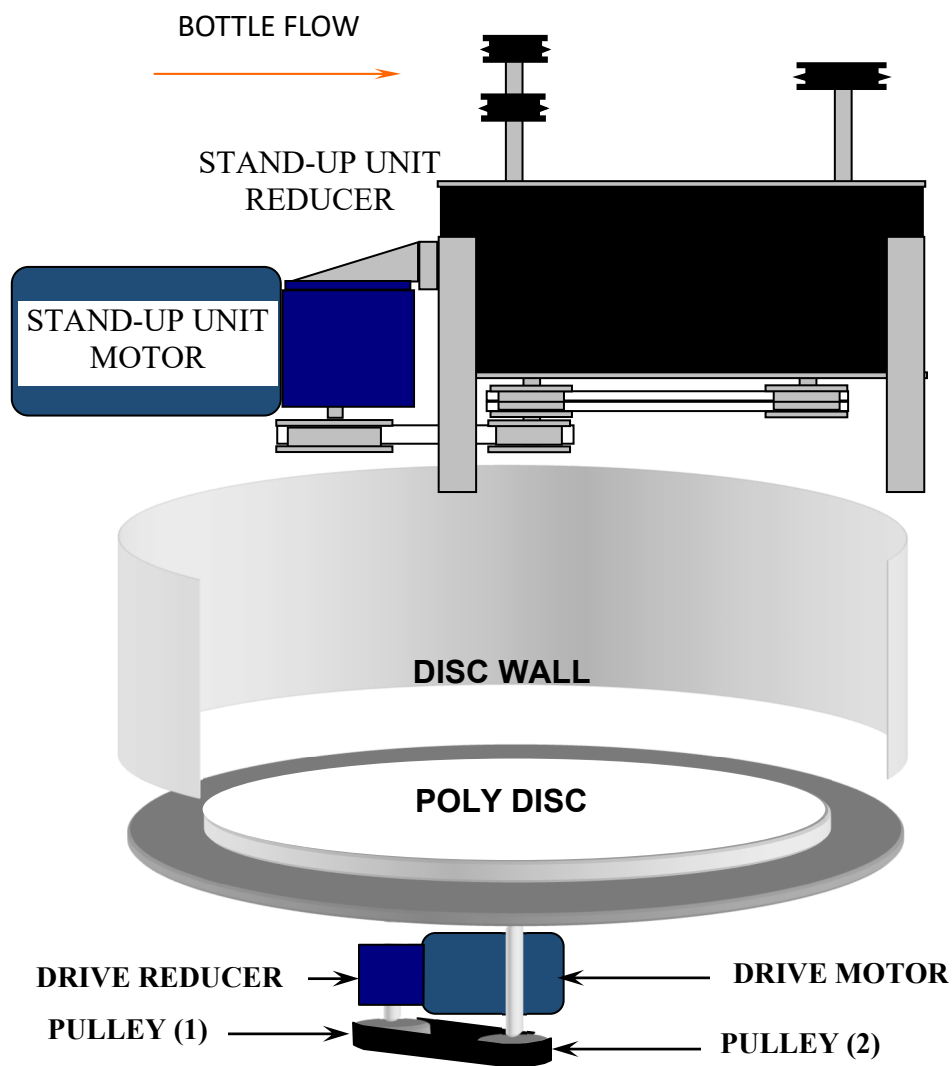


MAIN PULLEY PAGE		
NOTE: THE SSD & POWER RAMP OPTIONS ARE DOCUMENTED ON SEPARATE PAGES.		
FIGURE 13A		
PULLEY NAME	DESC.	PART NO.
OPERATOR'S SIDE TOP BAR		
PULLEY(1)	2AK34	36845
PULLEY(1A)	N/A	N/A
PULLEY(2)	2AK34	36845
PULLEY(3)	2AK34	36845
PULLEY(4)	2AK34	36845
PULLEY(5)	N/A	N/A
NON-OPERATOR'S SIDE TOP BAR		
PULLEY(6)	2AK34	36845
PULLEY(7)	2AK34	36845
PULLEY(8)	2AK34	36845
PULLEY(9)	2AK34	36845
PULLEY(10)	N/A	N/A
TOP BAR DRIVE PULLEYS		
PULLEY(11)	2AK25	36806
PULLEY(12)	2AK39	30784
PULLEY(13)	2AK61	36786
ROTARY BUMPER		
PULLEY(14)	AK30	30790
PULLEY(15)	AK25	30660
MDU		
PULLEY(16)	16L050	24886
PULLEY(17)	TENS.	38560
PULLEY(18)	16L050	24886

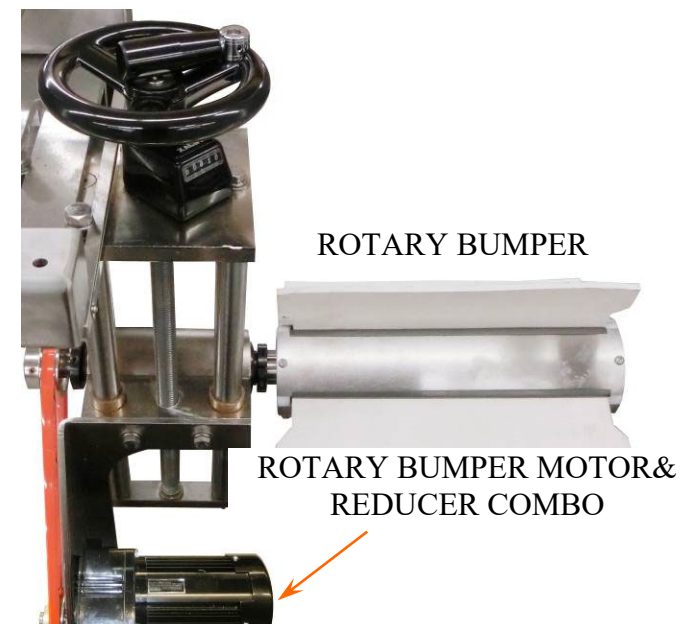


MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

MDU PULLEY HEIGHTS		
FIGURE 13A		
A	B	C
6 3/8"	3 1/2"	4 7/8"

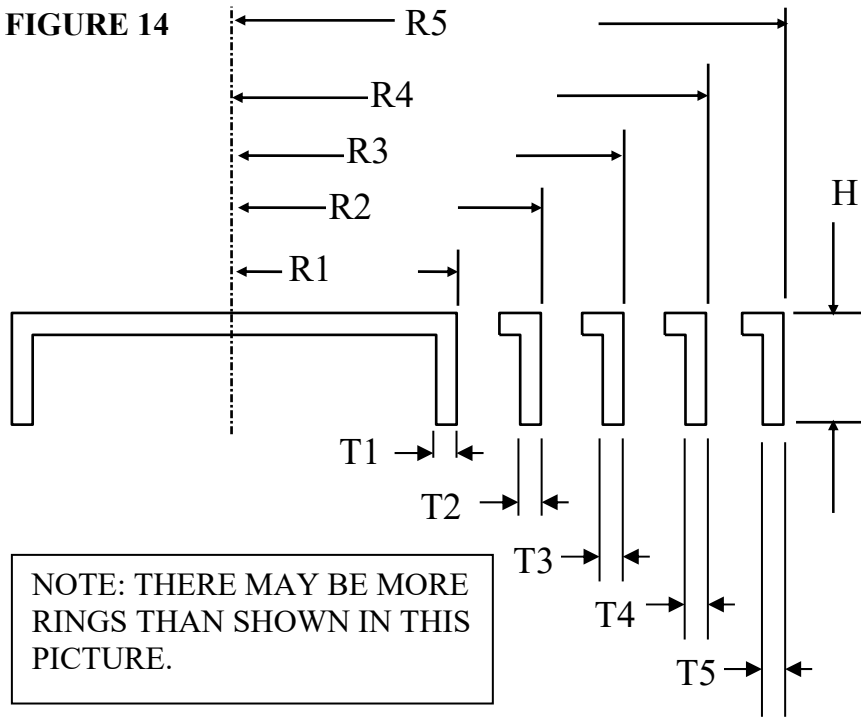


MOTOR DRIVE PAGE		
FIGURE 13B		
PULLEY NAME	DESC.	PART NO.
STAND-UP UNIT MOTOR	1 HP	44507
STAND-UP UNIT REDUCER	30:1	44093
DISC DRIVE MOTOR	1 HP	44507
DISC DRIVE REDUCER	60:1	45220
PULLEY (1)	2AK34X1	30783
PULLEY (2)	2TB64	32156
ROTARY BUMPER MOTOR	3/8 HP	46802
ROTARY BUMPER REDUCER		



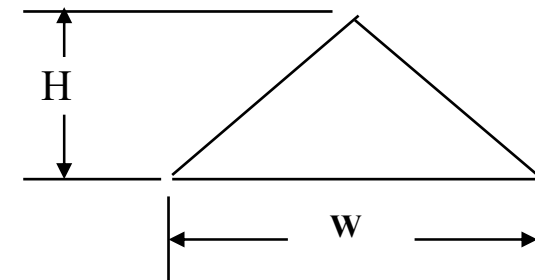
MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

FIGURE 14



MAIN DISC OR RING INFORMATION

DISC/RINGS	INNER RADIUS	OUTER RADIUS	Wall Thickness	Wall Height
MAIN DISC	-	10"	1/4"	1 1/2"
RING 1	10"	14 1/4"	1/4"	1 1/2"
RING 2	10"	15"	1/4"	1 1/2"
RING 3	10"	15 5/8"	-	3/4"
RING 4	10"	16"	-	3/4"
RING 5	10"	16 1/2"	-	3/4"
RING 6	10"	16 1/2"	-	3/4" TAPER 45°
RING 7	10"	15 1/2"	-	3/4" TAPER 45°
FLOOR PLATE 1	10"	17 3/4"	-	3/4"



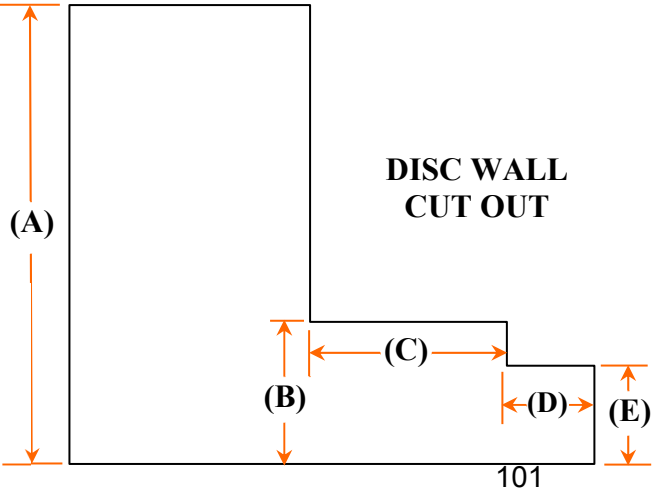
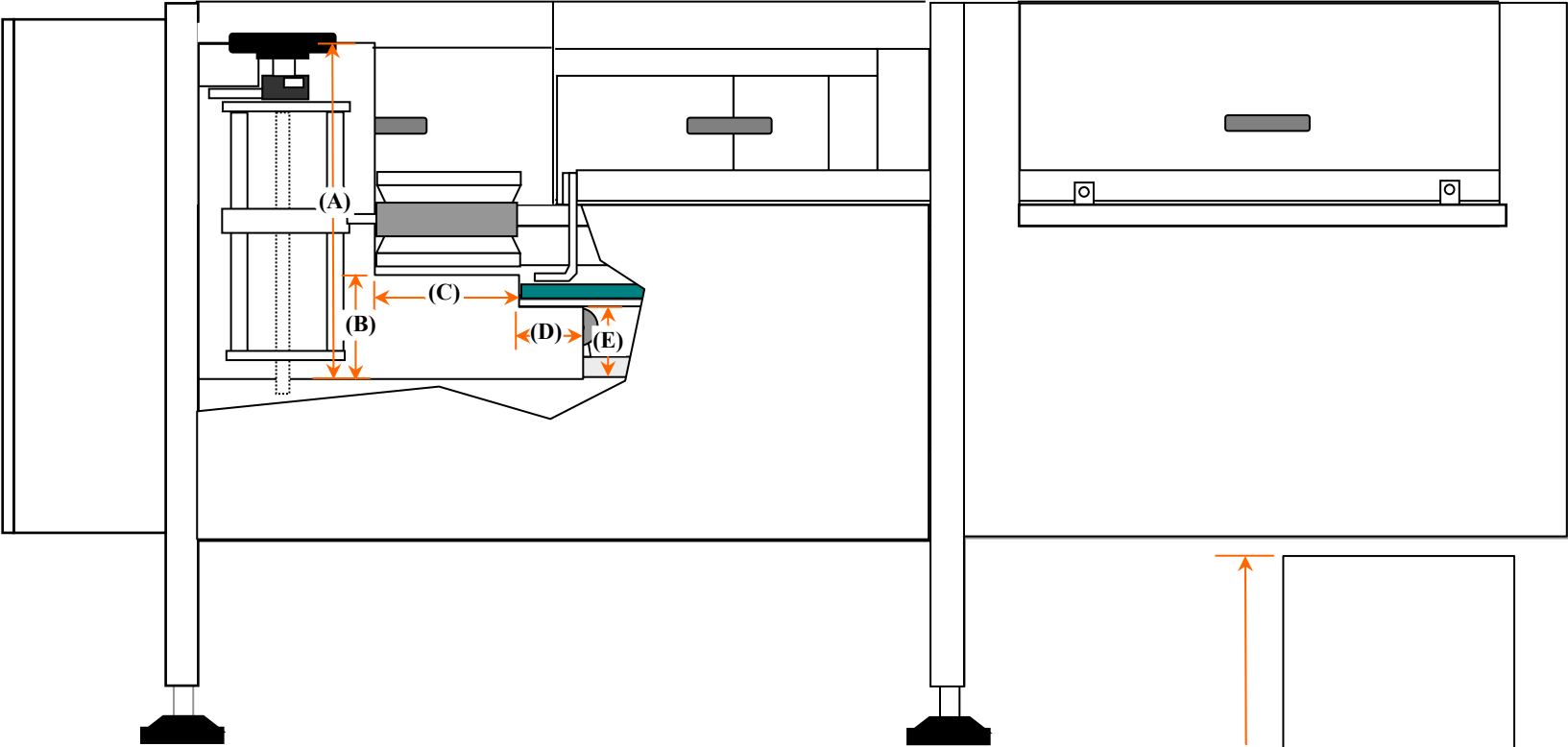
DISC CONE

H	W	PART NUMBER
2"	10 1/2"	49047



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

DISC WALL CUT OUT					
FIGURE 15					
BOTTLE SIZE	A	B	C	D	E
ALL BOTTLES	20 1/2"	8"	9"	2"	6 1/16"

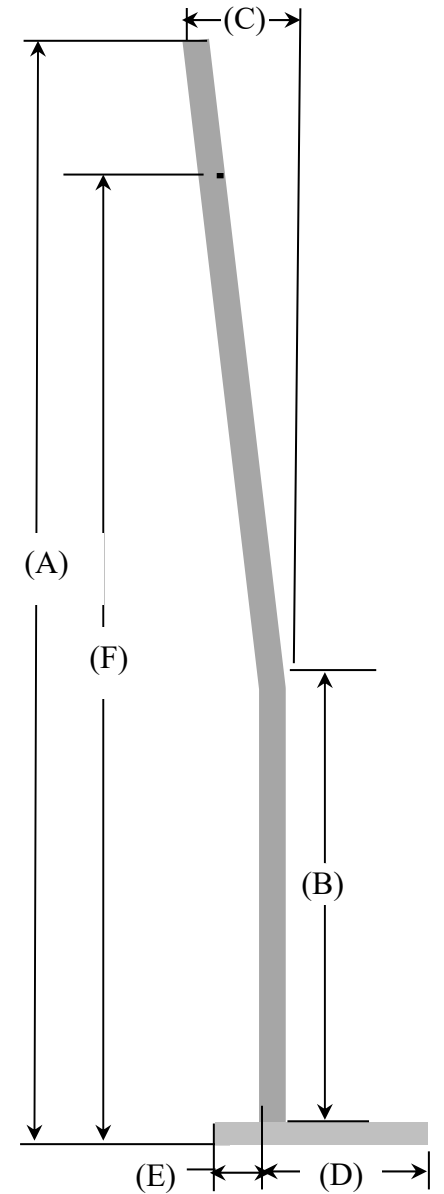


MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21

HOOK DIMENSIONS						
FIGURE 16						
HOOK	A	B	C	D	E	F
A	9 3/4"	3 1/4"	5/8"	3/4"	1/4"	SEE NOTCH

NOTCH	F
-------	---

5	
4	
3	
2	7 1/4"
1	7 3/4"

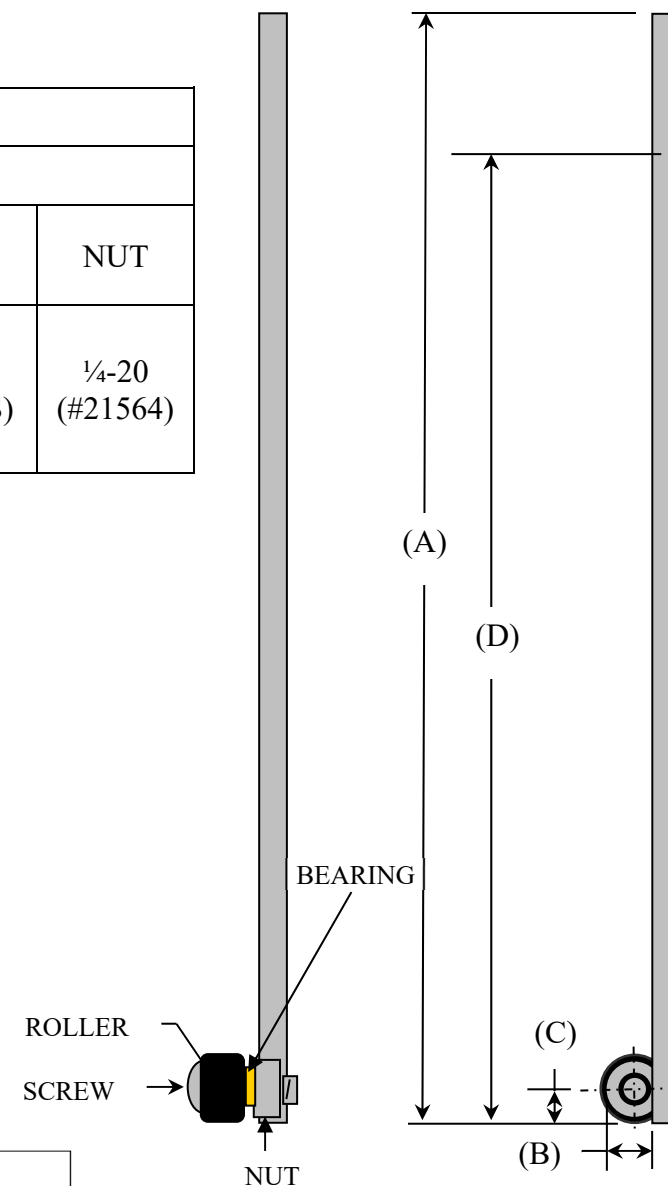


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CUSTOMER:	HOME CHEF
DATE:	2/4/21

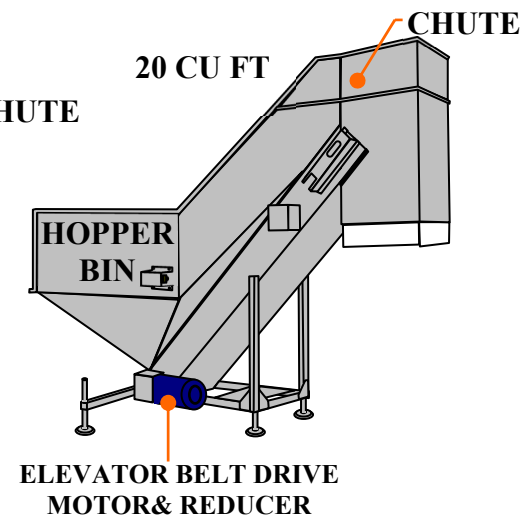
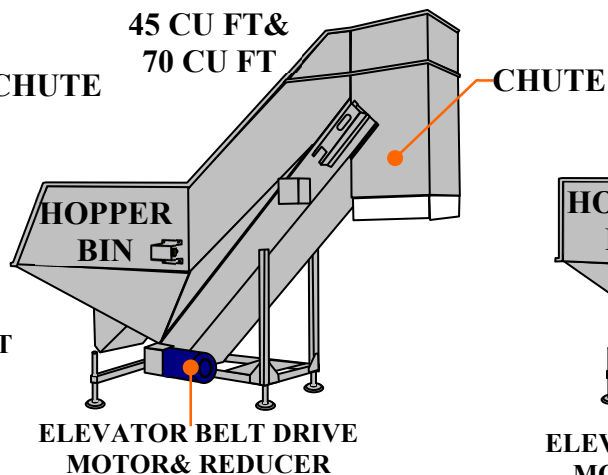
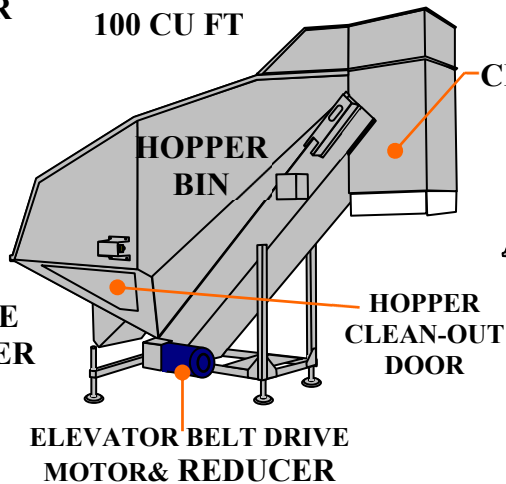
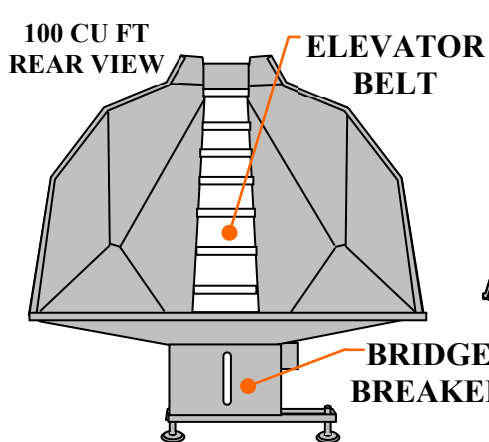
HOOK DIMENSIONS								
FIGURE 16								
HOOK	A	B	C	D		ROLLER	SCREW	NUT
B	10 ¼"	¾"	½"	SEE NOTCH		1 UNIT (#23080)	¼-20 (#21541 BHCS)	¼-20 (#21564)

NOTCH	D
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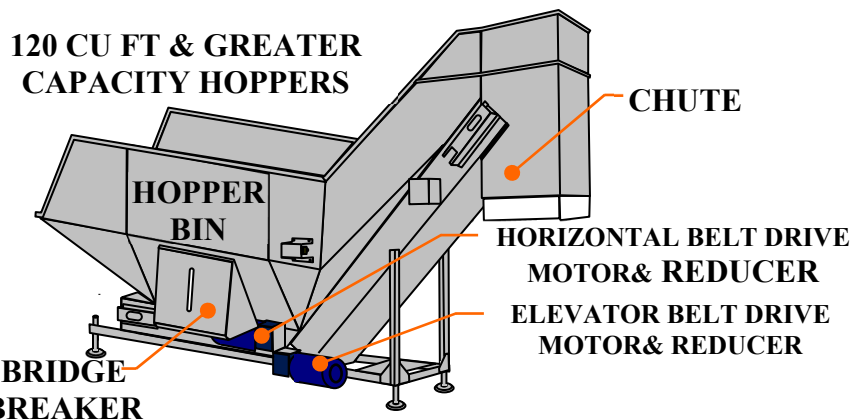
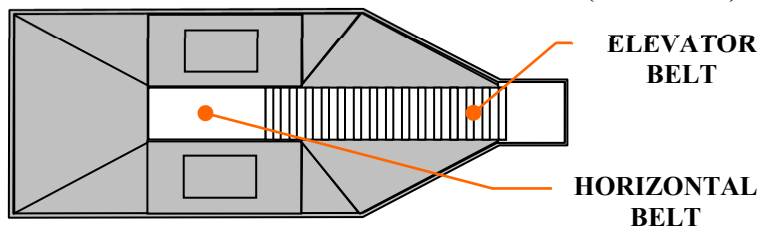
5	
4	
3	
2	7 3/8"
1	7 11/16"



MACHINE S/N:	4836
CUSTOMER:	HOME CHEF
DATE:	2/4/21



120 CU FT & GREATER CAPACITY HOPPERS (TOP VIEW)



HOPPER SPECIFICATION PAGE

FEATURE	"YES" OR "NO"	DIMENSION, LOCATION OR PART #
A) HOPPER SIZE	YES	45 CU FT
B) CHUTE	YES	
C) COVERS	YES	
D) ELEVATOR BELT	YES	
E) HORIZONTAL BELT	NO	
F) CLEAN-OUT DOOR (LOCATION)	NO	
G) BRIDGE BREAKER (LOCATION)	NO	
H) EXTENDED BIN (EXTENDED FOR HEIGHT)	NO	
I) EXTENDED BIN (EXTENDED FOR LENGTH)	NO	
J) FRAME EXTENSION	NO	
K) DROP LOAD GATE	NO	
L) BAFFLE IN THE CHUTE	NO	

MOTOR & REDUCER INFORMATION

MOTOR OR REDUCER	DESCRIPTION	PART #
ELEVATOR DRIVE MOTOR	1 HP	400579
ELEVATOR REDUCER	60:1	44510
HORIZONTAL DRIVE MOTOR	N/A	N/A
HORIZONTAL REDUCER	N/A	N/A

MACHINE S/N:	4837
CUSTOMER:	HOME CHEF
DATE:	2/4/21

ELECTRICAL SPECIFICATIONS

SECTION VII

Home Chef
1445 South Tippercanoe Ave
San Bernadino, CA 92408

M350R
Electrical Drawings

Job No: MS 331 Machine Serial No: 4836

DRAWING LEGEND			
SHEET	DESCRIPTION	SHEET	DESCRIPTION
1	DRAWING LEGEND	8	MAIN CONTROL CABINET EXTERIOR VIEW
2	X VAC POWER DISTRIBUTION	9	MAIN CONTROL CABINET INTERIOR VIEW
3	PS1 24 VOLT DC DISTRIBUTION	10	BILL OF MATERIAL
4	RACK CONFIGURATION AND COMMUNICATIONS	11	BILL OF MATERIAL
5	SAFETY CIRCUIT	12	BILL OF MATERIAL
6	PLC 24 VOLT DC INPUT MODULES	13	BILL OF MATERIAL
7	PLC 24 VOLT DC OUTPUT MODULES	14	-

**PACE**[®]

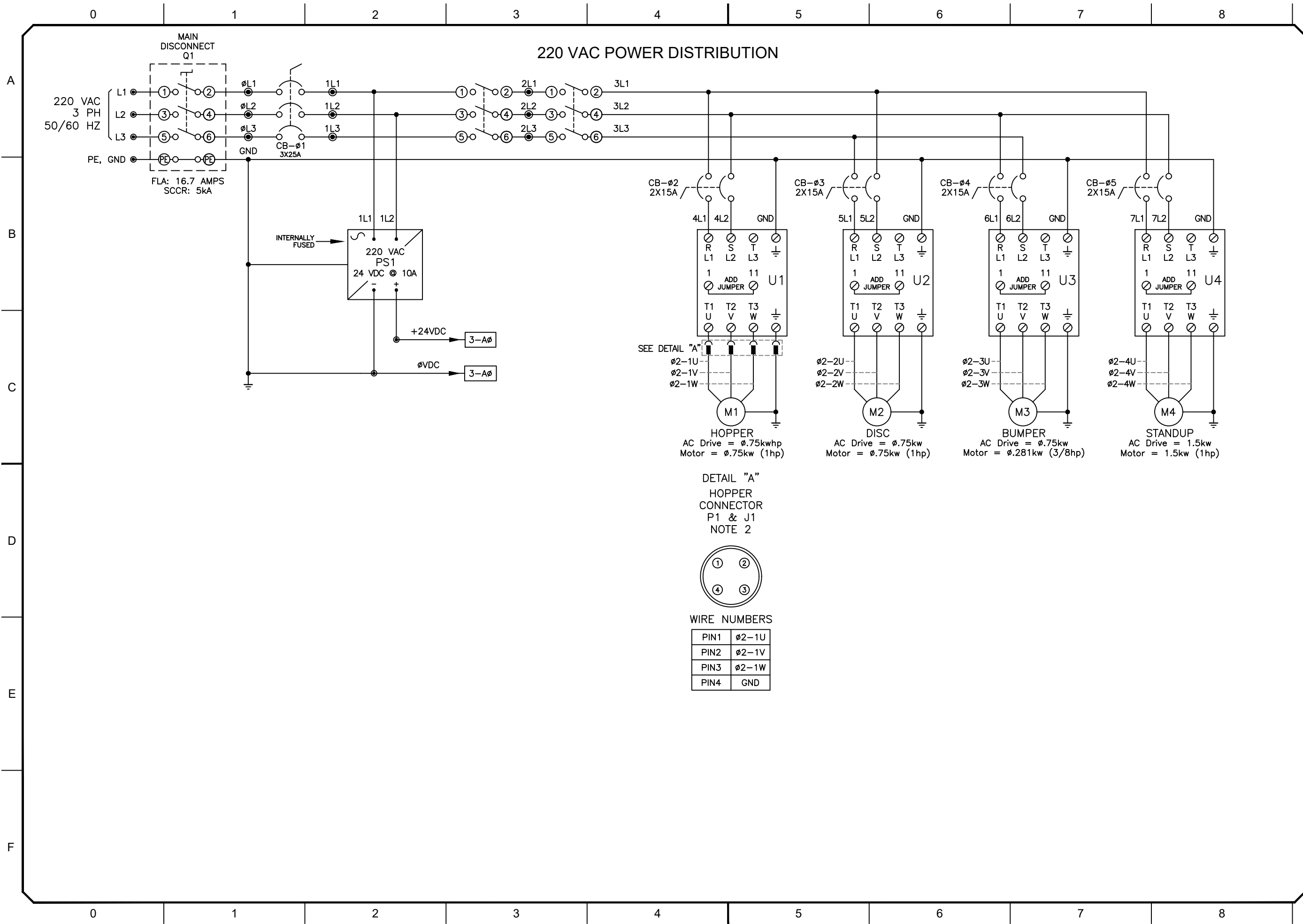
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4836

C	02/05/21	AS BUILT		LG	
B	11/05/20	RELEASED TO SHOP		LG	
A	11/04/20	PRELIMINARY		LG	
REV	DATE	REVISION		BY	
DWG TITLE					
M350R ELECTRICAL DIAGRAMS					
ENGINEER	LG	CHECKED BY	-		
JOB NO	4836	DRAWN BY	LG		
SOM NO	EL-4836	DATE	11/04/20		
DWG NO	BE4836				
SHEET NO	1 OF 13				

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**M350R
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DIAGRAMS**

ENGINEER	CHECKED BY
LG	-

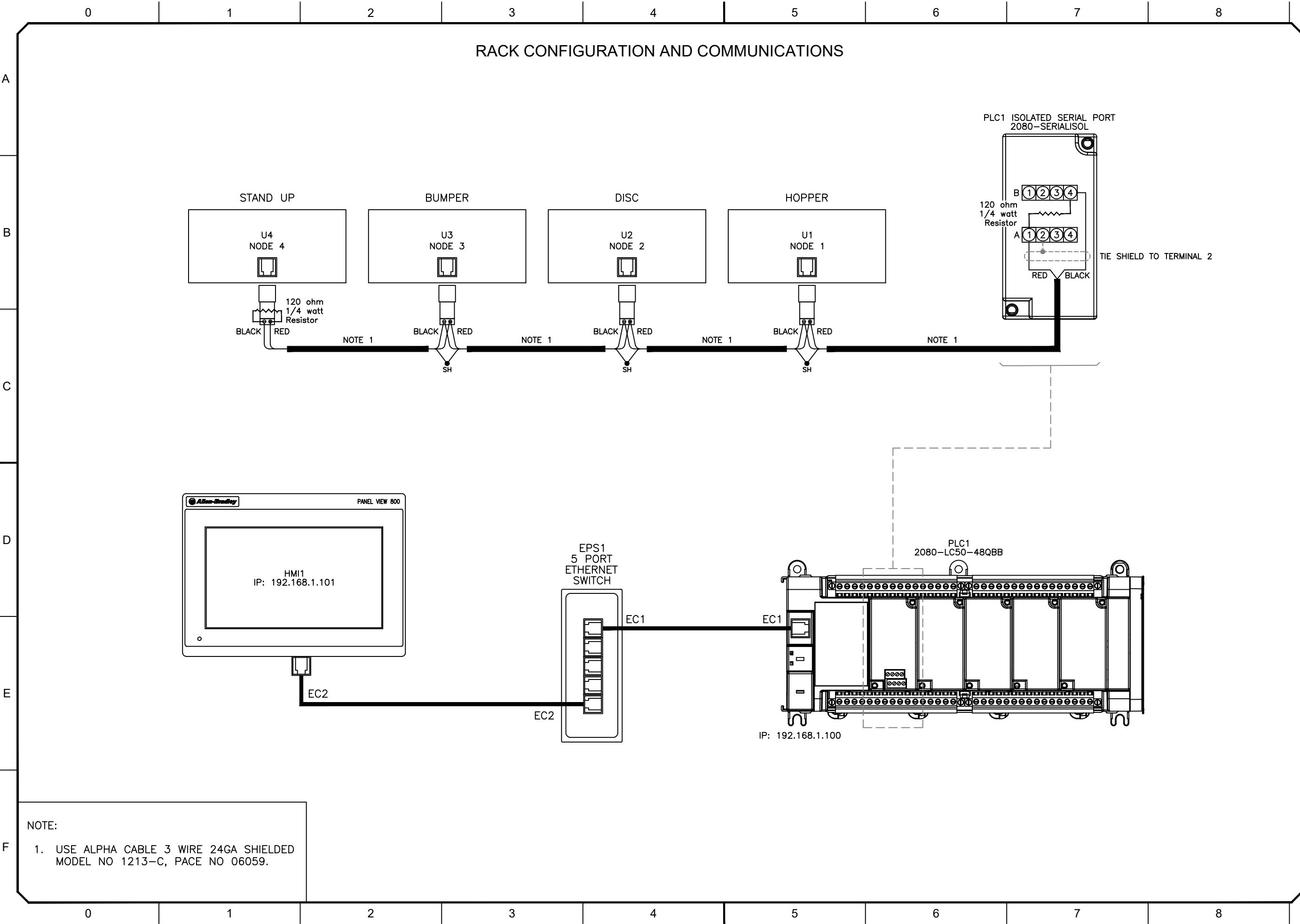
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4836	LG

SOM NO	DATE
EL-4836	11/04/20

DWG NO
BE4836

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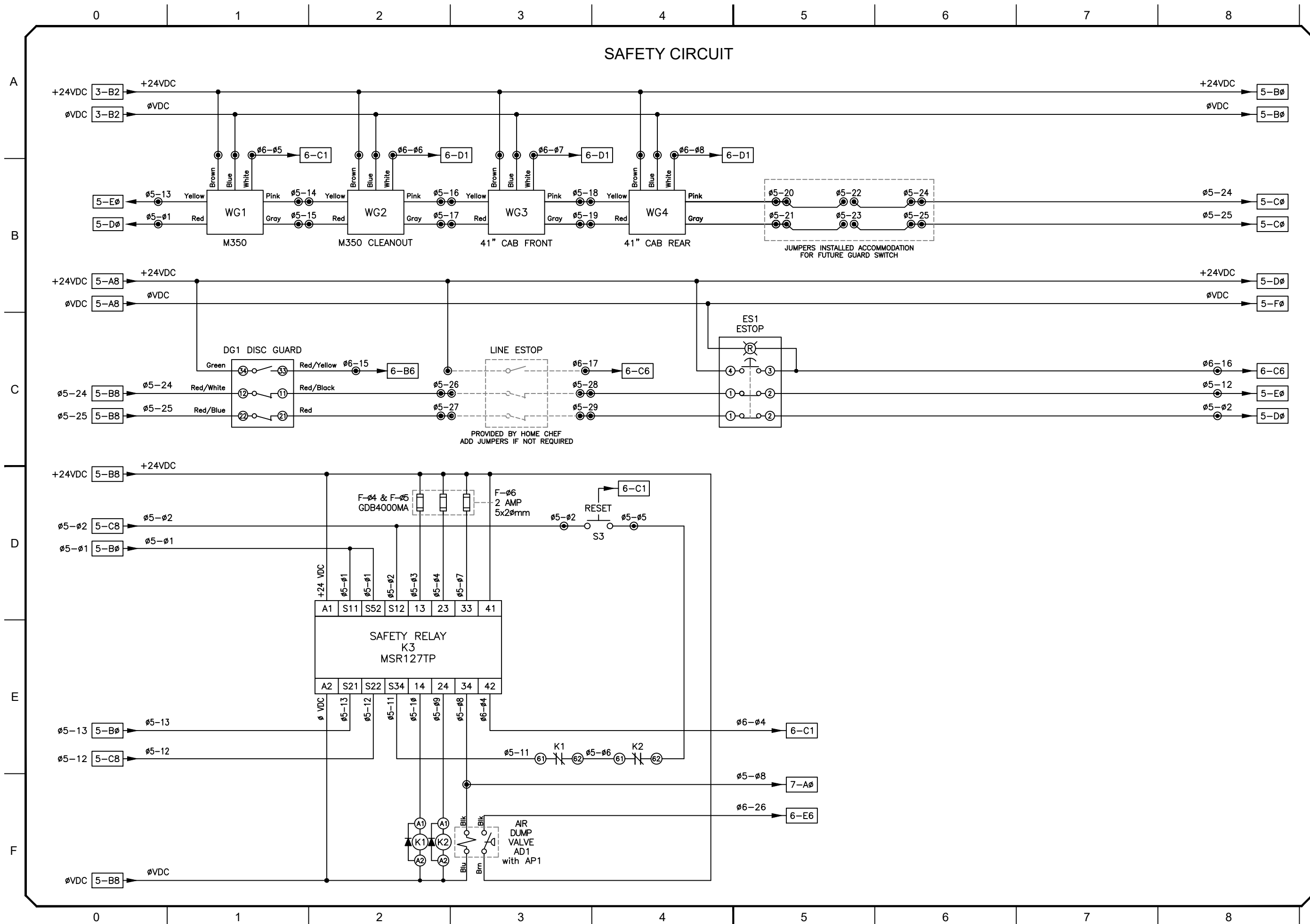
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DWG TITLE			
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ENGINEER	LG	CHECKED BY	-
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DWG NO			
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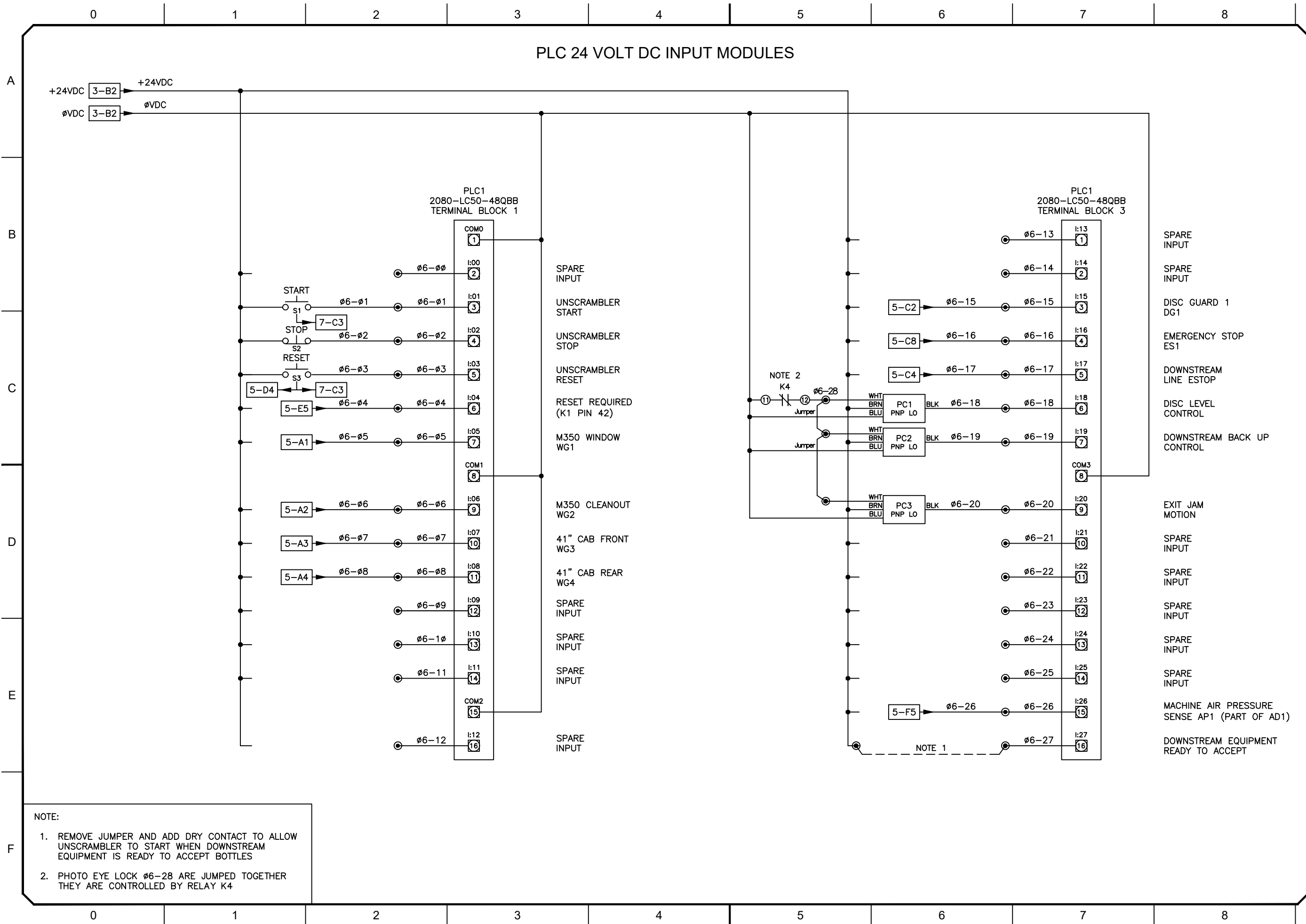


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A	11/04/20	PRELIMINARY			L
REV	DATE	REVISION			B
DWG TITLE					
M350R ELECTRICAL DIAGRAMS					
ENGINEER LG		CHECKED BY -			
JOB NO 4836		DRAWN BY LG			
ROM NO EL-4836		DATE 11/04/20			
DWG NO					
BE4836					
SHEET NO					
5 OF 13					



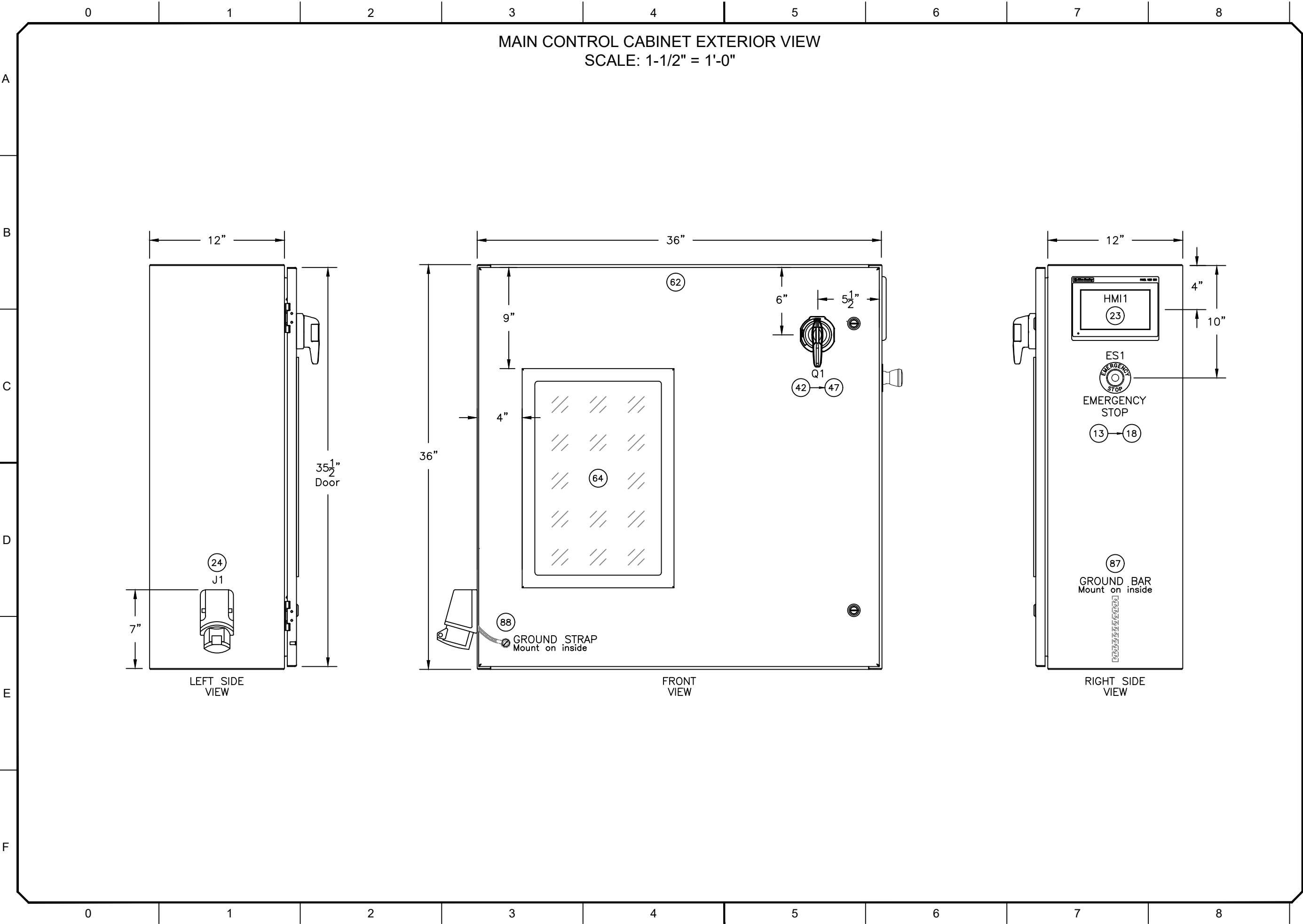
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DWG TITLE			
M350R ELECTRICAL DIAGRAMS			
ENGINEER	LG	CHECKED BY	-
JOB NO	4836	DRAWN BY	LG
SOM NO	EL-4836	DATE	11/04/20
DWG NO	BE4836		
SHEET NO	6 OF 13		



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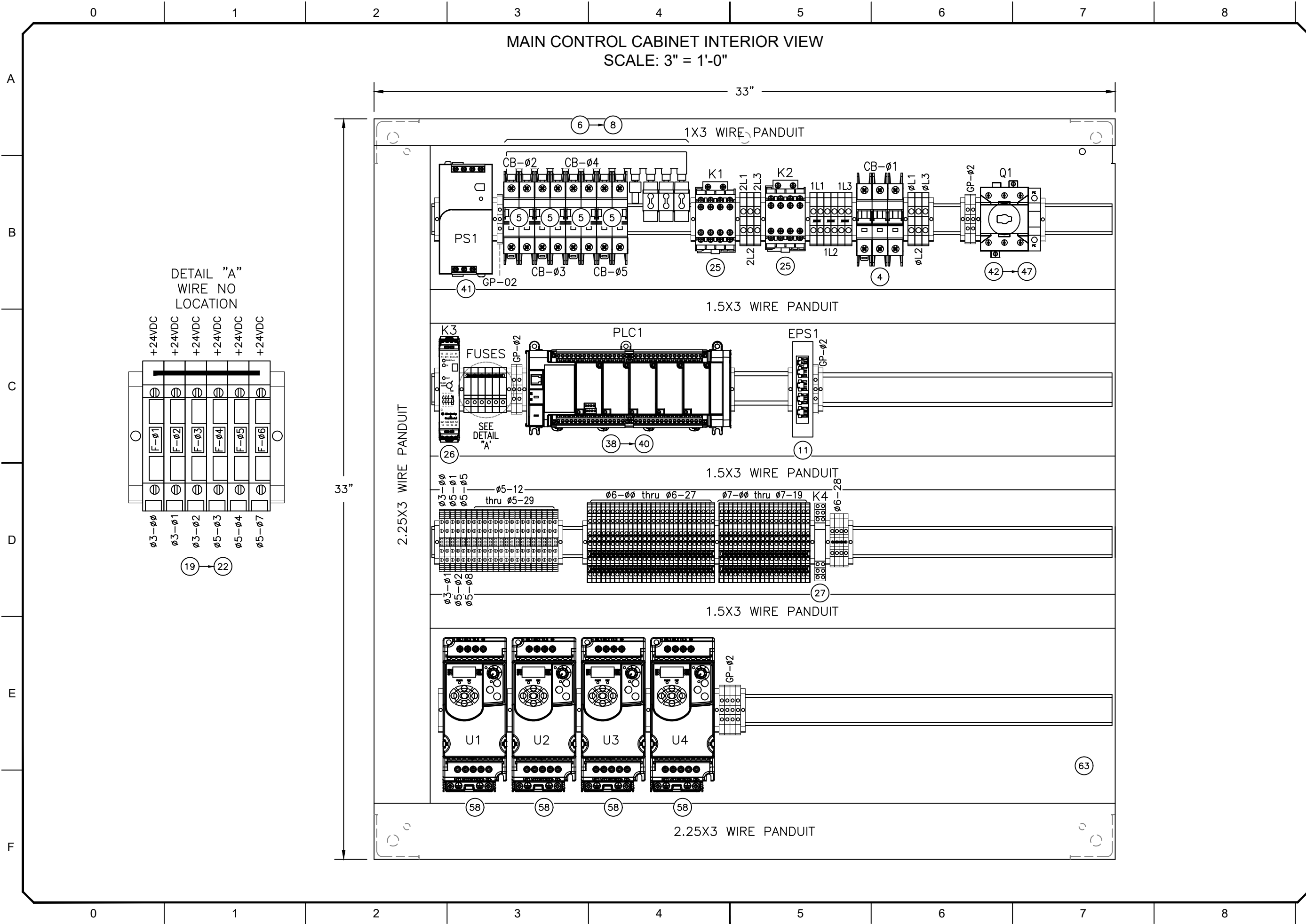
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DWG TITLE			
M350R ELECTRICAL DIAGRAMS			
ENGINEER	LG	CHECKED BY	-
JOB NO	4836	DRAWN BY	LG
SOM NO	EL-4836	DATE	11/04/20
DWG NO	BE4836		
SHEET NO	8 OF 13		

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9

A

B

C

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E

F

9

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DWG TITLE
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ENGINEER	CHECKED BY
LG	

JOB NO	DRAWN BY
4836	LG

SOM NO	DATE
EL-4836	11/04/20

DWG NO
BE4836

SHEET NO
9 OF 13

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0	1	2	3	4	5	6	7	8
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0	1	2	3	4	5	6	7	8
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9

A

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9

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0	1	2	3	4	5	6	7	8	9	
BILL OF MATERIAL										
ITEM NO	TAG NAME	SHEET NO	SHEET REFERENCE	QTY	PACE NUMBER	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	UL/CSA NUMBER	UL/CSA SYMBOL
23	HMI1	3,4	C4,D1	1	300994	ALLEN BRADLEY	2711R-T7T	PANELVIEW 800 7" TERMINAL	E10314	
24	J1	2	D5	1	25812	LAPP	471572FX	RECEPTACLE 4 PIN		
25	K1,K2	5,5	F2,F2	2	37735	ALLEN BRADLEY	100S-C09DJ14BC	SAFETY CONTACTOR 24VDC COIL		
26	K3	5	E2	1	37988	ALLEN BRADLEY	440R-N23132	MSR127TP MINOTAUR SAFETY RELAY		
27	K4	7	E3	1	24676	ALLEN BRADLEY	700HLT12Z24	RELAY 24VDC SPDT W/TERMINAL BLOCK ASSEMBLY		
28	M1	2	C5	1	400579	BALDOR	CESWDM3546	MOTOR; 1HP;3PH 230/460VAC 56C WASH DOWN		
29	M2,M4	2,2	C6,C8	2	44507	MARATHON	G583	MOTOR; 1HP;3PH 230/460VAC 56C		
30	M3	2	C7	1	46802	BODINE	2862	MOTOR;3/8HP;3PH;220/460VAC;170 RPM;60HZ		
31	M3	2	C7	1	36335	BODINE	984	MOTOR J BOX FOR 46802		
32	P1	2	D5	1	25811	LAPP	700137FX	PLUG 4 PIN		
33	PC1	6	C6	1	200384	ALLEN BRADLEY	42JT-C2LAT1-P4	VISISIGHT PHOTOELEC TRIC SENSOR POLARIZED RETROREFLECTIVE WITH I/O LINK 24VDC PNP		
34	PC2,PC3	6,6	C6,D6	2	200382	ALLEN BRADLEY	42JT-P2LAT1-P4	VISISIGHT PHOTOELEC TRIC SENSOR CLEAR OBJECT DETECTION 24VDC PNP		
35	PC1,PC3	6,6	C6,D6	2	301086	ALLEN BRADLEY	889P-F4AB-10	CORD SET PICO CABLE FEMALE STRAIGHT 4 PIN YELLOW 10M		
36	PC2	6	C6	1	301113	ALLEN BRADLEY	889P-F4AB-20	CORD SET PICO CABLE FEMALE STRAIGHT 4 PIN YELLOW 20M		
37	PC1 thru PC3	6,6,6	C6,C6,D6	3	301105	ALLEN BRADLEY	92-125	REFLECTOR 3-1/4" ROUND		
38	PLC1	3,4,6,6,7,7	B6,D6,B3,B7,B2,B5	1	300274	ALLEN BRADLEY	2080-LC50-48QBB	MICRO 850;48 I/O ETHERNET;IP CONTROLLER		
39	PLC1	4	A7	1	38610	ALLEN BRADLEY	2080-SERIALISOL	COMM;MOD;RS232/485 SERIAL PORT		
40	PLC1	4,4	B7,C1	2	24820	NEWARK ELECTRONICS	58K3804	RESISTOR 120 OHMS 1/4 WATT		
41	PS1	2	B2	1	37839	ALLEN BRADLEY	1606-XLE240E	POWER SUPPLY 100-240VAC 1PH 24VDC 10A	E56639	
42	Q1	2	A1	1	24100	ALLEN BRADLEY	194E-A32-1753	SWITCH - DISCONNECT 3 POLE 32A		
43	Q1	2	A1	1	24428	ALLEN BRADLEY	194E-A32-PE	TERM;EARTH/GROUNDING		
44	Q1	2	A1	1	24712	ALLEN BRADLEY	194E-25-C3	TERMINAL COVER; 3 POLE		

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M350R
4836

C	02/05/21	AS BUILT			LG
B	11/05/20	RELEASED TO SHOP			LG
A	11/04/20	PRELIMINARY			LG
REV	DATE	REVISION			BY
DWG TITLE					
M350R ELECTRICAL DIAGRAMS					
ENGINEER	LG	CHECKED BY	-		
JOB NO	4836	DRAWN BY	LG		
SOM NO	EL-4836	DATE	11/04/20		
DWG NO					
BE4836					
SHEET NO					
11 OF 13					

CAD DWG FILE: BE4836.DWG

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0	1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---	---

A

B

C

D

E

F

0	1	2	3	4	5	6	7	8
---	---	---	---	---	---	---	---	---

9

A

B

C

D

E

F

9

CAD DWG FILE: BE4836.DWG

M350R
4836

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	0	1	2	3	4	5	6	7	8	9	
A	BILL OF MATERIAL										
B											
C											
D											
E											
F											
	0	1	2	3	4	5	6	7	8	9	

ITEM NO	TAG NAME	SHEET NO	SHEET REFERENCE	QTY	PAGE NUMBER	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	UL/CSA NUMBER	UL/CSA SYMBOL
67	NAMEPLATE	---	---	1	22722	PACE	22722	LEGEND; STOP; 1/2 X 1		
68	NAMEPLATE	---	---	1	23200	PACE	23200	LEGEND; RESET; 1/2 X 1		
69	NAMEPLATE	---	---	1	23392	TRIANGLE	6010B-ISO	LABEL; ELECT; HI VOLT, SYMBOL		
70	TERMINAL COMPONENT	---	---	3	23668	ALLEN BRADLEY	1492-J4	TERMINAL BLOCK SINGLE (SMALL)	E40735	
71	TERMINAL COMPONENT	---	---	12	24376	ALLEN BRADLEY	1492-J6	TERMINAL BLOCK SINGLE (LARGE)	E40735	
72	TERMINAL COMPONENT	---	---	4	24178	ALLEN BRADLEY	1492-EBJ3	END BARRIER FOR 1492-J4 & J6	E40735	
73	TERMINAL COMPONENT	---	---	22	25827	ALLEN BRADLEY	1492-J4Q	TERMINAL BLOCK QUAD	E40735	
74	TERMINAL COMPONENT	---	---	1	25828	ALLEN BRADLEY	1492-EBJ4Q	END BARRIER FOR 1492-J4Q	E40735	
75	TERMINAL COMPONENT	---	---	3	24067	ALLEN BRADLEY	1492-CJ6-2	2 POSITION JUMPER BAR FOR 1492-J6	E40735	
76	TERMINAL COMPONENT	---	---	10	24214	ALLEN BRADLEY	1492-JG4	TERMINAL BLOCK GROUND (SMALL)	E40735	
77	TERMINAL COMPONENT	---	---	48	24361	ALLEN BRADLEY	1492-WTF3	TERMINAL BLOCK THREE LEVEL	E40735	
78	TERMINAL COMPONENT	---	---	2	24402	ALLEN BRADLEY	1492-EBTF3	END BARRIER FOR 1492-WTF3	E40735	
79	TERMINAL COMPONENT	---	---	4	24363	ALLEN BRADLEY	1492-CJT5-50	50 POLE CENTER JUMPER BAR FOR 1492-WTF3	E40735	
80	TERMINAL COMPONENT	---	---	32	23941	ALLEN BRADLEY	1492-ERL35	TERMINAL BLOCK END BRACKET	E40735	
81	SUB PANEL	---	---	1	37068	IBOCO	T1-1030G	WIRE PANDUIT 1X3 GRAY WITH COVER		
82	SUB PANEL	---	---	2	37148	IBOCO	T1-1530G	WIRE PANDUIT 1.5X3 GRAY WITH COVER		
83	SUB PANEL	---	---	1	37069	IBOCO	T1-2230G	WIRE PANDUIT 2.25X3 GRAY WITH COVER		
84	SUB PANEL	---	---	2	37100	IBOCO	OMEGA 3F	DIN RAIL 7.5MM 2 METERS		
85	WIREWAY	---	---	2	38160	LASNEK	K33-03	WIREWAY; 3X3; 3M; SS SATIN	FILE NO. 206295	
86	WIREWAY	---	---	4	38164	LASNEK	K33-21	WIREWAY; END CAP; 3X3	FILE NO. 206295	
87	HARDWARE	---	---	1	300240	SAGINAW	SCE-GB10	GROUND BAR, MAIN PANEL		
88	HARDWARE	---	---	1	300241	SAGINAW	SCE-GS808	GROUND STRAP, MAIN PANEL		

				Pace Packaging LLC Fairfield, NJ 07004			
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M350R				4836			
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C	02/05/21	AS BUILT					LG
B	11/05/20	RELEASED TO SHOP					LG
A	11/04/20	PRELIMINARY					LG
REV	DATE	REVISION					BY
DWG TITLE							
M350R ELECTRICAL DIAGRAMS							
ENGINEER LG				CHECKED BY -			
JOB NO 4836				DRAWN BY LG			
BOM NO EL-4836				DATE 11/04/20			
DWG NO							
BE4836							
SHEET NO							
13 OF 13							

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