



MODEL SPECTRA MAX v.20

SERIAL # 2006-8899999

2270 Industrial boul. , Montreal (Laval), Canada, H7S 1P9

Tel.: (450) 667-9769, Fax: (450) 667-6320



INSTRUCTION **MANUAL**

**FOR ALL INQUIRIES
PLEASE CONTACT
OUR LOCAL DISTRIBUTOR**

**FOR NORTH AMERICA ONLY
1-800-333-6556**

Thank you for choosing ORION stretch-wrapping equipment. It is a wise choice, which will benefit your company now and in the future.

ORION uses a unique combination of functional, rugged steel structure and sophisticated control systems to offer equipment high in durability and low in maintenance requirements. Our advance control systems mean that Orion equipment can be operated safely and efficiently without the need for special operator expertise.

Please read this manual carefully and keep it handy. Following these simple operating instructions will insure the safe and efficient performance of this machine while simple maintenance procedures will guarantee a long and productive life of the equipment.

Notice:

Our manual covers standard features of the machine. Certain options may not be fully covered due to their unique application.

In order to acquire more information about custom made features of your machine and to provide quicker service, the following information is required when making an inquiry:

1)Model

2)Serial Number **2006-8899999**

3)Subassembly (see PART LIST)

SAFETY:

ORION'S stretch wrappers should be operated with caution and common sense as any other industrial equipment. To prevent injury and/or electrical shocks, careful operation of the machine and awareness of its many automatic functions is required.

NOTE: All electrical power and compressed air must to be disconnected prior to all inspection, maintenance or repair work.

ORION PACKAGING INC.

SpectraMAX

Spiral Low Profile Platform Automatic Rotary Turntable System

Maximum Load Size 52"W x 52"L x 90"H
Minimum Load Size 30"W x 30"L x 10"H
Weight Capacity 5,000 lbs. Dynamic ; 20,000 lbs. Static
Utilities 115 / 1 / 60 ; 20 Amp Electrical Service ; 3 CFM Compressed Air @ 80 PSI

Turntable & Drive: 65" Diameter x 3/8" Steel Plate
0-14 RPM variable speed with adjustable soft-start
Dynamic positive alignment home positioning feature
Chain & sprocket drive with automatic, self-adjusting chain tensioner
In-line helical gear reducer on turntable drive train
No-maintenance, quiet DuraGlide™ support bearings
3" Height floor to top of turntable

Control Features: State-of the-Art Allen Bradley MicroLogix Programmable Logic Controller
User Friendly Controls with Non-Proprietary Pushbuttons, and Switches
Insta-Sense™ Film Broken /Out Sensing Logic with Indicator Light
Lanyard Switch for Customer Installation to Allow Remote Cycle Start
AUTOMATIC film attachment to the load and cut off
RevoLogic™ Exact Wrap Counting To Eliminate Film Waste
Electronic Film Tension Control Adjustment on the Panel
End of Cycle Film Force Release
Separate Top and Bottom Wrap Count Selectors
Variable Speed & Separate Film Carriage Up/Down Controls
Film Carriage Raise/Lower Switch (Manual)
Turntable Jog Pushbutton
Cycle Pause for Stopping the Wrap Cycle Without Resetting
All Colors Compatible Photocell for Automatic Load Height Detection

Film Stretch & Delivery: Uses standard 20" film rolls
InstaThread for ultra-fast drop-in film threading
260% Standard film stretch (available from 100% to 425%)
AUTOMATIC electronic non-contact film force-to-load control
Dynamic dancer bar for consistent film tension around entire load
Precision ground, polyurethane stretch rollers with lifetime warranty

Film Carriage Drive: Heavy Duty Zero-maintenance industrial belt lift carriage
Variable Speed Drive Motor
UHMW Precision Carriage Guidance System

Structural Features: All STEEL base frame and tower construction
Base structure includes dual full-length steel channels
Forklift portable from front or rear of machine
Hinged tower for ease of transport (reduces machine profile)
Adjustable, foldaway film roping bar to lock load to pallet

Film Tail Treatment: Pneumatic Film Clamping Device
Impulse Wire Film Cutting
Pneumatic Load Seeking Film Tail Treatment System
Folding Film Clamp For Short Loads Wrapping Capability

Ease of Use and Safety: Fail-Safe film carriage drive with free-fall prevention
Film carriage features obstacle detection with automatic shut-off
Ergonomic side facing film replacement
Protective cover over powered prestretch rollers
All-enclosed chains & electronics
Protective barrier for film tail treatment device
No operator involvement required for film attachment to the load and cut off

- **ORION PACKAGING RESERVES RIGHTS TO CHANGE THIS SPECIFICATION AT ANY TIME WITHOUT NOTICE**

MACHINE UNLOADING INSPECTION & INSTALLATION

UNLOADING

Machine can be easily unloaded and transported by a forklift with a minimum capacity of 2500 lbs.

1. Carefully insert the forks into the lifting tubes to the maximum possible depth. Depending on the model, a forklift access may be either at the turntable end of the machine frame, the tower end or both. In case of the mongoose machine enter the forks under the frame or insert the forks in the tube brackets welded to the top of the machine.

2. Lift the machine (or other part of system) only to the necessary height to move it with no bouncing or friction on the floor.

3. Sit the machine down assuring uniform contact with the floor, which is necessary to ensure correct and smooth operation.

INSPECTION

1. Remove all packing and supporting additions - these may include the blocks under the carriage and the restraining bar over the table. **NOTE:** when removing the stretchwrap film covering the machine, care must be taken not to cut any of the electrical wires and/ or polyurethane covering on the film carriage rollers.

2. Perform a visual inspection of the electrical and mechanical parts for loosened joints and / or broken connections. Any suspected shipping damage must be reported immediately to the freight carrier. Any transport damage cannot be claimed to Orion Packaging Inc. Items that are vulnerable to damage and must be inspected are as follows:

- Motors and transmissions
- Junction boxes
- Electrical conduits
- Proximity and limit switches
- Photocells

3. Check under the turntable to ensure that there is no crippling of the movable parts i.e. casters, center axle or drive assembly.

4. Verify the following:

- Turntable or rotary arm drive system to confirm that the reducer to drive the chain is snug and properly aligned.
- Verify the wires tight conduits for crushed sections or loose fittings.

- Verify the film carriage to be sure that it is correctly aligned with the tower

- Verify the tension on the lift chain.

- Verify all the dials and knobs on the control panel for smooth action.

MACHINE INSTALLATION

After the visual inspection has been completed, the electrical power and the compressed air shall be connected as specified on the diagrams supplied with the machine. An electrical diagram is provided with each machine in the envelope attached to the panel box.

ASSEMBLY PROCEDURE

The structural frames of the machine have to be installed on a leveled floor. Locate the main wrapper section into its final position, keeping the tower assembly* away from any traffic. The wrapper mainframe section **must be bolted to the floor by the 1/2" concrete floor anchors** (leg & shield or expandable type). Any wiring that has been disconnected to facilitate transport is marked with a number located on the junction box to which the wiring must be reconnected. Any wire run that appears too short or long may indicate that the position of the mechanical components is incorrect. Verify the status of all assemblies before proceeding.

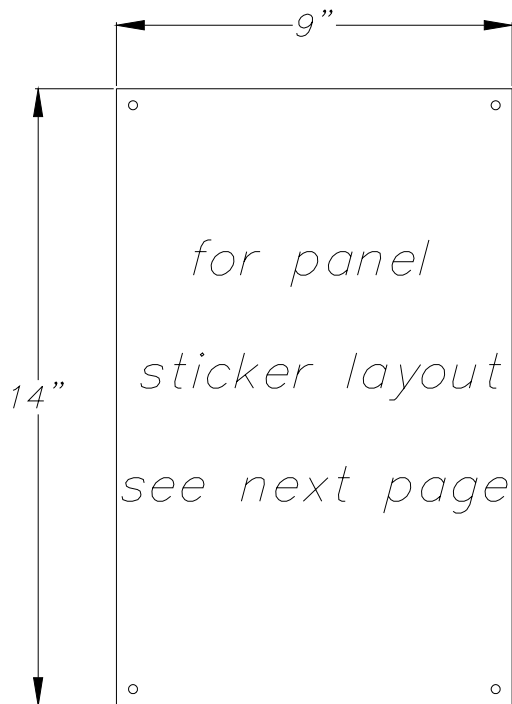
* The tower deviation from vertical must not exceed 1/4" on the distance of 10 feet (angle: 0 degrees 6').

THE ROPING BAR

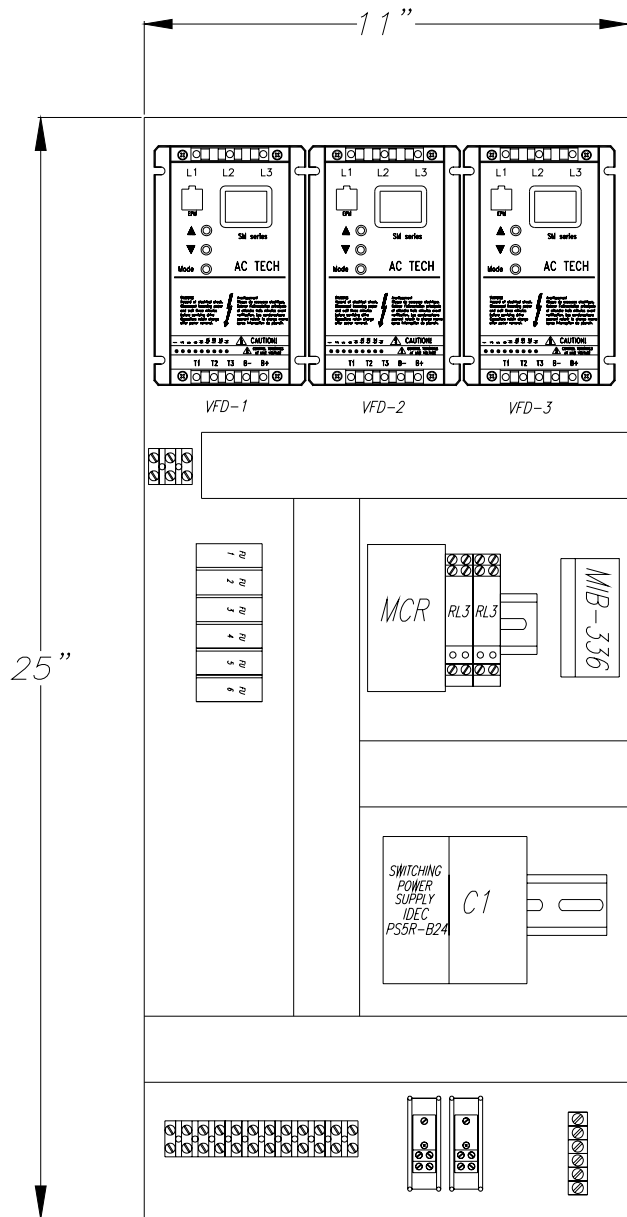
The roping bar is rotating around the shoulder screw (dwg M-435381 item # 7) and his height can be adjusted from 0 to 6 inches from the base. That device is squeezing a stripe from 0 to 6 inches of the film like a rope to stabilize the load itself or attach it on the pallet. To adjust the roping bar you need a 1/2" wrench and you have to loose up the screw #5 and #6.

Getting started ; Security tip

Be careful to never walk on the turntable it could cause you an injury. Put a pallet on the turntable and attach the end of film around the load on the same side than the control panel. Put the carriage at the bottom end of the tower to begin a cycle of wrapping. After the start don't stay to close and wait until the end of the cycle. After the cycle, cut the film and remove the load. The carriage is returned back to the bottom of the tower and ready to wrap again.

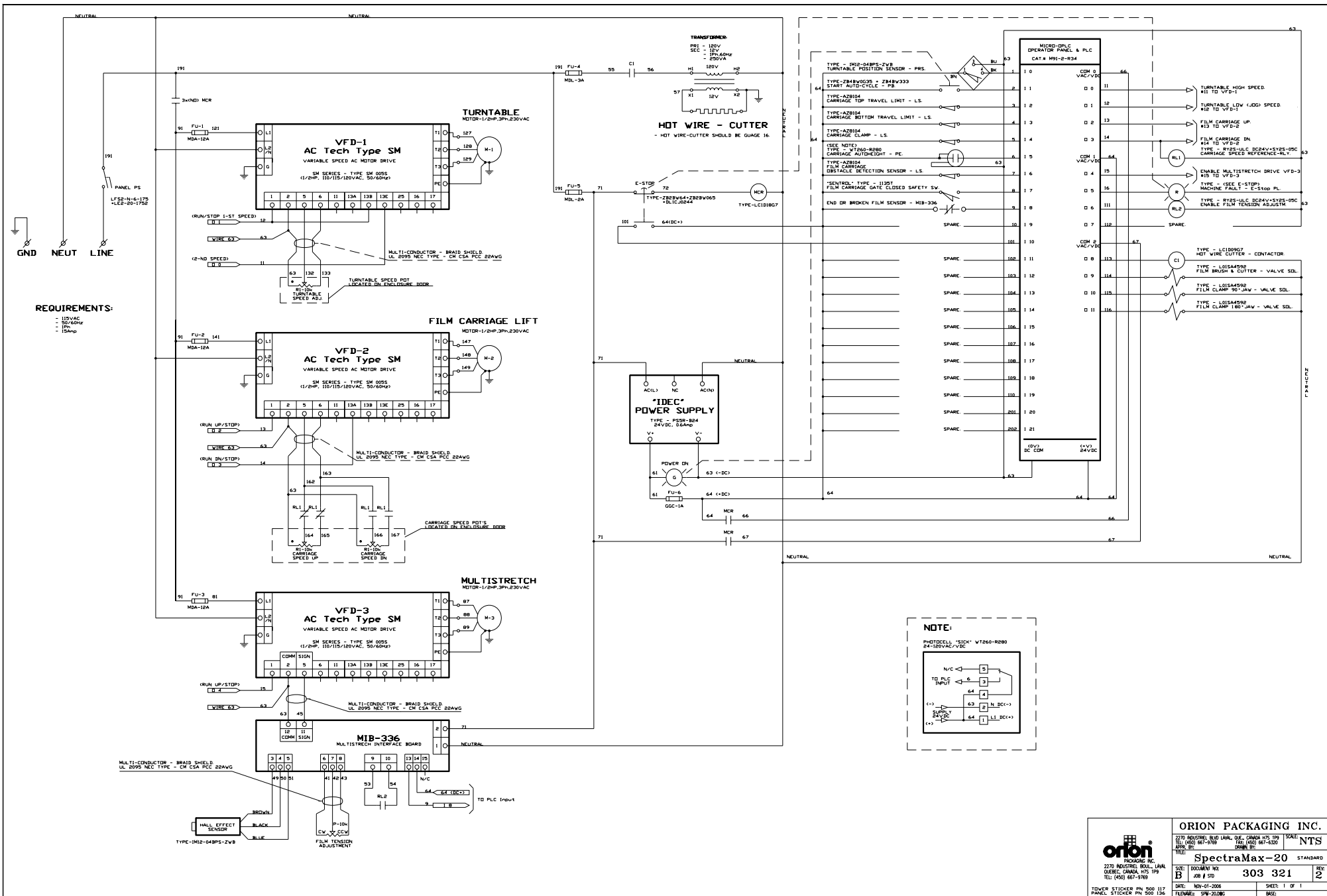


FRONT PLATE



BACK PLATE

<p>ORION PACKAGING INC. 2270 INDUSTRIEL BOULEVARD LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	ORION PACKAGING INC.		SCALE: 1:2
	2270 INDUSTRIEL BOULEVARD LAVAL, QUE., CANADA H7S 1P9		
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	APPR. BY: J.B.S. DRAWN BY: J. ALEXANDER		
TITLE: SPECTRMAX-20 "STANDARD"		SIZE: DOCUMENT NO: 303 321/L	REV: 2
DATE: NOV-01-2006		SHEET: 1 OF 1	
FILENAME: SPM-20L.DWG		BASE:	



Note: For VFD adjustment, please contact Orion Packaging service department.

		ORION PACKAGING INC.	
		2270 ANDREW BLVD. LAVAL, QUE. CANADA H7S 1W9 TEL: (450) 667-9700 FAX: (450) 667-4300 WWW: WWW.ORIONPACKAGING.COM	SCALE: NTS
303	321	321	2
DATE: 10/01/2008	DRAWN BY: [Signature]	SHEET: 1 OF 1	REV: 2
TOWER STICKER PN 500 117	FILENAME: SW-20208	DATE: 10/01/2008	REV: 2
PANEL STICKER PN 500 116			

START



STOP



FILM TENSION	CARRIAGE SPEED UP	CARRIAGE SPEED DN	TURNTABLE SPEED

<input type="checkbox"/> 1	AUTOHEIGHT PE		OFF/ON		CARRIAGE JOG UP
<input type="checkbox"/> 2	TOP WRAPS		T (1-9)		
<input type="checkbox"/> 3	BOTTOM WRAPS		B (1-9)		
<input type="checkbox"/> 4	WRAPPING MODE		a - SPIRAL UP & DOWN b - SPIRAL UP ONLY		
<input type="checkbox"/> 5	WRAPPING MODE		c - TOP WRAPS FIRST d - BOTTOM WRAPS FIRST		
<input type="checkbox"/> 6	TURNTABLE JOG				
<input type="checkbox"/> 7	FILM CLAMP OPEN / CLOSE				
<input type="checkbox"/> 8	REINFORCED WRAPS		R (1-9)		
<input type="checkbox"/> 9	PAUSE / RESET				



MACHINE OPERATION

POWER SWITCH

Located on the panel door or side of the panel box, the lockable power switch has two settings:

- ON - connects a power source to the machine
- OFF - disconnects the power source.

START AND EMERGENCY STOP SWITCHES

The START switch is used to start the cycle once the load is on the turntable. The cycle may be stopped at anytime by pressing the STOP button. (see **Figure 1**)



Figure 1

NOTICE: The STOP button interrupts the entire machine electrical circuits. To continue the cycle the STOP push/pull button should be pulled out and START button pressed for the machine to restart. Double pressing the push – pull STOP button will reset the machine program and machine will be ready to apply the wrapping cycle from the beginning.

SETTING-UP MACHINE PARAMETERS

Note: Parameter change is available when machine is not in cycle.

1- AUTOHEIGHT PHOTOCELL

Press button #1 on the keypad to switch from ON to OFF, or vice-versa.(see **Figure 2**)

ON - When ON, the photocell is activated to automatically detect top of the load. The carriage will automatically stop at the top of the load regardless of its height.

OFF - When OFF, the photocell is inoperative and carriage will travel to the top limit switch regardless of its height.

NOTE: For proper machine operation, top limit switch position should be adjusted to desired level prior to starting the cycle.



Figure 2

2- TOP WRAPS 1,2,3...9

Press button #2 on the keypad to select “Top Wrap”, then using the arrows on the keyboard select between 1 to 9 for required number of wraps on top of the load.

3- BOTTOM WRAPS 1,2,3...9

Press button #3 on the keypad to select “Bottom Wrap”, then using the arrows on the keyboard select between 1 to 9 for required number of wraps at the bottom of the load.

Note: Refer to the list of options at the bottom of the panel sticker for reference. (see **Figure 3**)

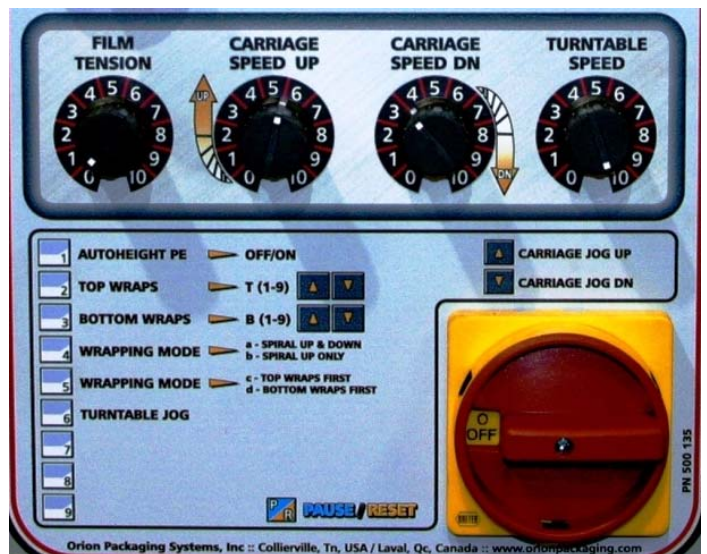


Figure 3

4- WRAPPING MODE “SPIRAL” UP OR UP-DOWN

Press button #4 on the keypad to switch from **UP** to **UP & DOWN**, or vice-versa.

UP - When the UP position has been selected machine will first wrap bottom of load applying selected number of bottom wraps. The film carriage will then move to the top of load and stop. Selected number of top wraps will then be applied, after which the turntable will slow down and stop in home position. Wrap pattern “SPIRAL UP ONLY” has been completed.

UP-DOWN - This Selection has two Sub-Modes, programmable to enable the machine to perform the two different wrap patterns (Bottom Wraps First and Top Wraps First). (**Figure 4**)



Figure 4

5- WRAPPING MODE; BOTTOM WRAPS FIRST OR TOP WRAPS FIRST (ENABLE ONLY IF THE WRAPPING MODE SPIRAL UP-DOWN HAVE BEEN SELECTED PREVIOUSLY)

Press button #5 on the keypad to switch from **BOTTOM WRAPS FIRST** to **TOP WRAPS FIRST**, or vice-versa.

BOTTOM WRAPS FIRST - When this Sub-Mode has been selected machine will first wrap bottom of load applying selected number of bottom wraps. The film carriage will then move to top of load and stop. Selected number of top wraps will then be applied. The film carriage will move down to bottom position, after which the turntable will slow down and stop in home position.

TOP WRAPS FIRST - When this Sub-Mode has been selected film carriage will move to top of load and stop. Selected number of top wraps will be applied. The film carriage will then move to bottom of the load and stop. Selected number of bottom wraps will then be applied. The film carriage will remain in bottom position; turntable will slow down and stop in home position.

6- TURNTABLE JOG

The turntable jog can operate only when machine is not in cycle. The turntable jog will rotate at a low speed when the button #6 is held down, when released, the turntable will stop.

FILM TENSION

Film tension may be adjusted using the film tension control knob (see **Figure 5**). The range of tension is from 0 to 10 (0 to 4 the low range, 4 to 8 the most selected range for most of the films used by our customers, 8 to 10 as a very high range which may break some types of films).



Figure 5

CARRIAGE SPEED (Film Overlap)

The carriage speed knob can be used to control the amount of film overlap apply during the wrap. The potentiometer has settings from 0 to 10, the higher the settings the faster the speed. High settings apply less film overlap due to faster carriage speed. Low settings apply more film overlap due to lower carriage speed.

This machine is equipped with independent speed adjustment for travel up & down. (see **Figure 5**)

TABLE / TOWER SPEED

The table speed knob can be used to control the speed of the table during the operation mode.

MACHINE WRAPPING TEST

Notice: It is advisable to test-run the equipment with several pallet loads before attempting to wrap using film. Please position the operator beside the EMERGENCY STOP push button. Start up of the machine (system) may determine the need for the adjustment of:

- Load height stop photoswitch (on the carriage)
- Top limit switch position
- Bottom limit switch position
- Roping bar height adjustment

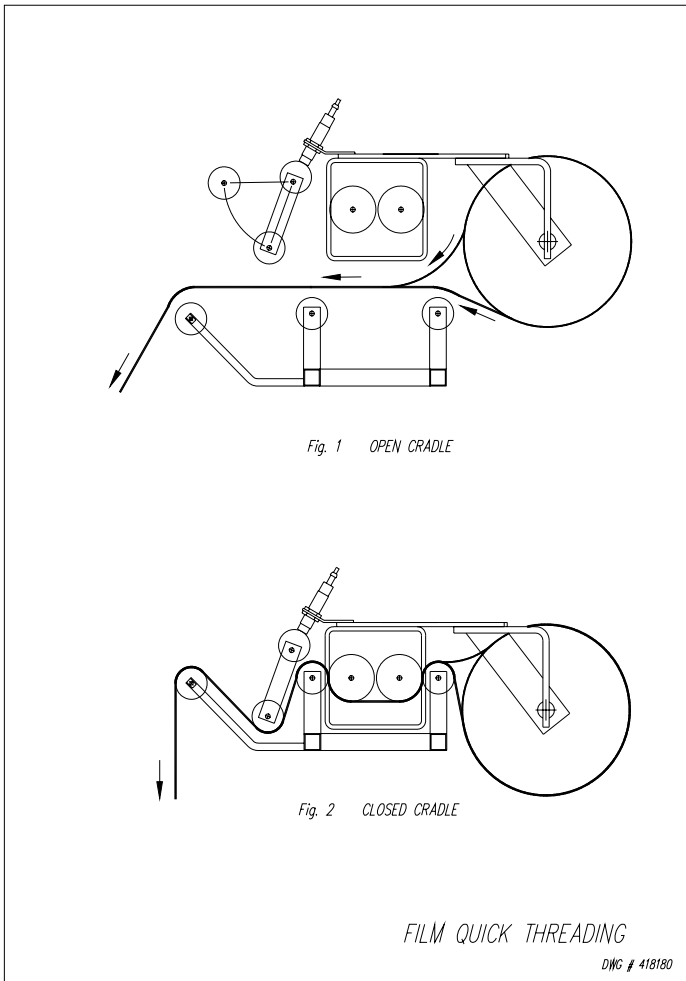
Before the test procedures adjust the wrapping cycle parameters i.e. top wraps, bottom wraps, height photocell on/off, film tension, carriage speed (Last two parameters may be adjusted during the wrapping cycle).

LOADING THE FILM

The film roll can be loaded on the carriage mandrel from either end of the roll. When using tacky film, please verify that the inward tacky surface of the film is inward on the load.

1. Disconnect power (turn off power switch).
2. Swing up the top mandrel spool.
3. Put the roll of film on the bottom mandrel.
4. Install the top mandrel on top of the roll to prevent upward movement.
5. Pull the handle marked PULL TO OPEN to open film distributor cradle.
6. Pass the roped tail of the film through opening (as shown on the film quick threading pattern DWG. # 418180 Fig.1).
7. Close the film distributor cradle by pushing bar marked PUSH TO CLOSE.
8. When the film feeding is completed (fig. 2) – turn the power switch on.
9. Peel off the first few winds of the film (multistrech will run due to displacement of the dancer roller) and fix the film end onto the load.

The system is now ready to begin the first wrapping cycle.

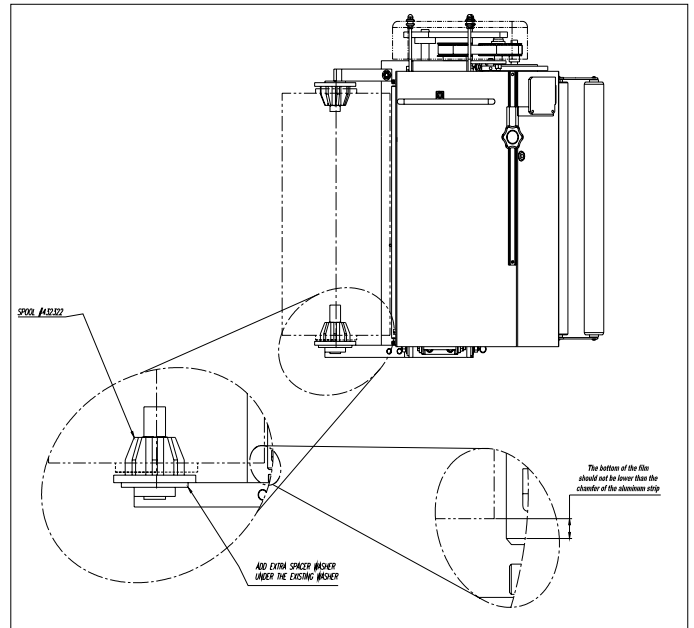


ADDITIONAL SPACER WASHER

(IF NEEDED ONLY)

The roll of film may be slightly different from time to time, so you might have to change the bottom spool spacer (washer). The only thing you have to do is to add or remove the spacer washer under the bottom spool. With the machine there is 1 washer under the bottom spool (432322), and you have received with the machine 2 extra washer to be use if needed.

Note: The bottom of the film should not be lower than the chamfer of the aluminum strip as shown on the drawing below.



PROXIMITY SENSOR ADJUSTMENT

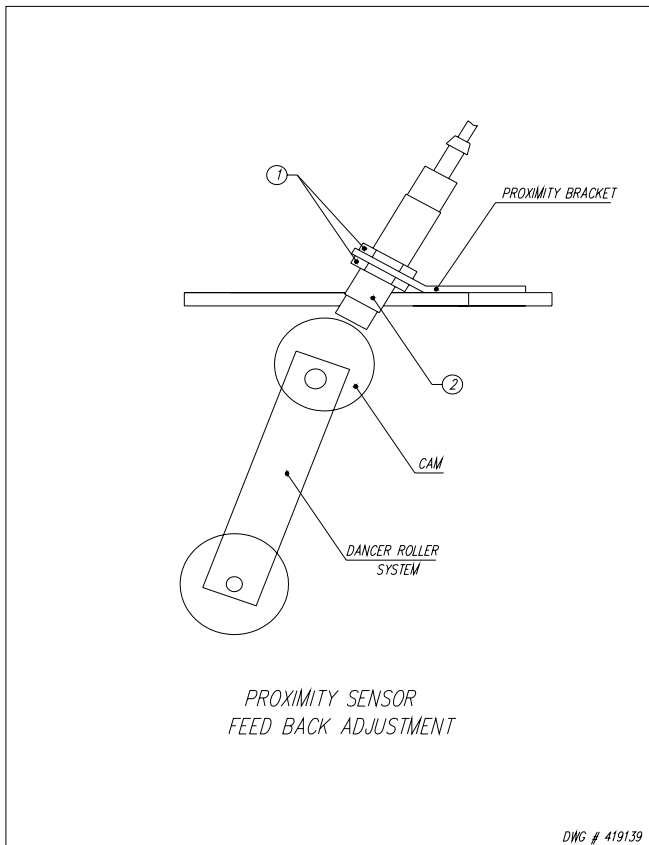
Occasionally the Feed Back Proximity Sensor may need some adjustment. The position of the feed back proximity sensor against the cam is shown on drawing # 419139 and on **Figure 6**.

Adjustment instructions:

- Power down machine.
- Remove the carriage cover.
- Unbolt the two nuts holding the proximity switch - item # 1.
- Turn the Proximity sensor - (item # 2) to create the gap between the cam and the front side of proximity sensor about 1/8 ".
- Tighten on the nuts securing the Proximity Sensor.
- Put the cover back on.
- Power up machine.
- Turning the trim pot SPAN adjust the moment when motor starts to turn when dancer roller moved from its home position up to 1 1/2".
- If not satisfied repeat the procedure.



Figure 6



MACHINE MAINTENANCE

All general information about machine maintenance is based on normal machine working conditions: indoor, moderate dust and low moisture environment, and maximum rotation of 32 RPM of turntable/rotary arm. They should be regarded as guidelines, reviewed and corrected according to requirements of actual use and conditions.

MOTOR MAINTENANCE

An occasional inspection of the brushes should be made in order to establish a wear rate. Replacement brushes should be installed before old brushes wear to 9/16" long, measured on the long side. After replacing brushes run the motor near rated speed for at least 1/2 hour with no load to seat the new brushes. Failure to properly seat the new brushes may cause commutator damage and rapid wear of the new brushes. If the commutator becomes rough, scored or out of shape, a competent motor shop should disassemble it and resurface the commutator. With every third brush change, have a competent motor shop resurface the commutator and blow the carbon dust out of the motor.

REDUCER OIL CHANGE

All external cap screws and plugs on the reducing transmission should be checked for tightness after the first week. It is recommended to change the oil every six months or at least 1800 hours of operation, whichever comes first. When adding or changing oil, the transmission should never be filled above the oil level mark indicated, because leakage and overheating may occur. Below is the list of the type of lubricant that should be used. List of recommended reducer oils:

Manufacturer	Lubricant
American Oil Co.	American Cyl Oil no: 196-L
Cities Service Oil Co.	Citgo Cyl Oil 100-5
Gulf Oil Corp.	Gulf Senate 155
Mobil Oil Corp.	Mobil 600 W Suer-r Cyl. Oil
Philips Oil Corp.	Andes S 180
Texaco Inc.	624 + 650T Cyl.Oil
Shell Oil Co.	Velvata Oil J82
Union Oil of Cal.	Red Line Worm Gear Lube 140

RING BEARING MAINTENANCE (when applicable)

The ring bearing (located under the turntable) should be re-lubricated internally and externally.

Internally: by injecting grease into all the lubrication nipples in succession until a collar of fresh grease appears around the perimeter of the ring. The re-lubrication interval suggested for these bearings, used in Stretch Wrapping Machinery is 750 hours, with a maximum period of 6 months. The lubricant should be fresh and applied in sufficient quantities to make sure all surfaces are lubricated.

Externally: by lubricating and wiping the chain drive with oily cloth. The frequency of lubrication depends on entirely upon the usage of the machine and environment in which the machine is placed (dust, moisture etc.). Machines working under extremely dirty conditions should be lubricated every 400 operating hours but at minimum, every 2 months. Longer lubrication intervals may occur only when machine is working under very clean and dry conditions but should be not be longer than 6 months.

List of recommended lubricants for the ring bearing lubrication

Manufacturer	Lubricant
BP	Energrease LS2
Castrol	Speeroll AP2
Esso	Beacon 2
Gulf	Crown Grease 2
Mobil	Mobilus 2
Shell	Avania Grease RT 2
Texaco	Glissando FT 2
Valvoline	LB-2

TOWER RACEWAYS MAINTENANCE

The film distributor (carriage) is sliding on the plastic guides attached behind its back plate. The section of the tower on which the plastic guides move (raceways) should be cleaned and re-greased approximately every 600 hours of machine operation.

NOTICE: If the machine works in a dusty and corrosive environment, the raceways should be re-greased more often (at least every 100 hours).

CHAIN MAINTENANCE

To clean the chain, wipe it with an oily cloth every month. When machine is working in a dusty and damp environment, it may be necessary to repeat the cleaning operation more often. As the chain lubricants please use the most common chain lubricants on the market. With time, the chain will tend to stretch. A loose tower chain should be tightened by moving the reducer on its mounting plate. Turntable is equipped with automatic chain tensionner and does not need any adjustment.

NOTICE: First chain tension inspection must be done after the first two weeks of machine usage.

CAM FOLLOWER MAINTENANCE (when applicable)

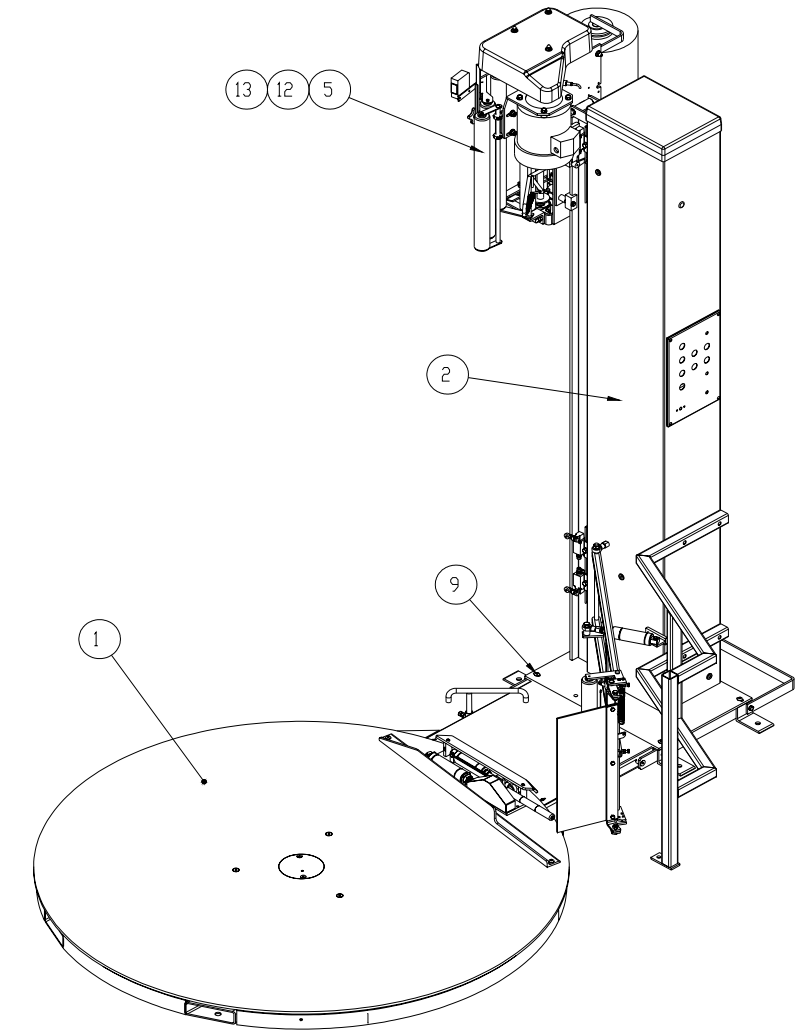
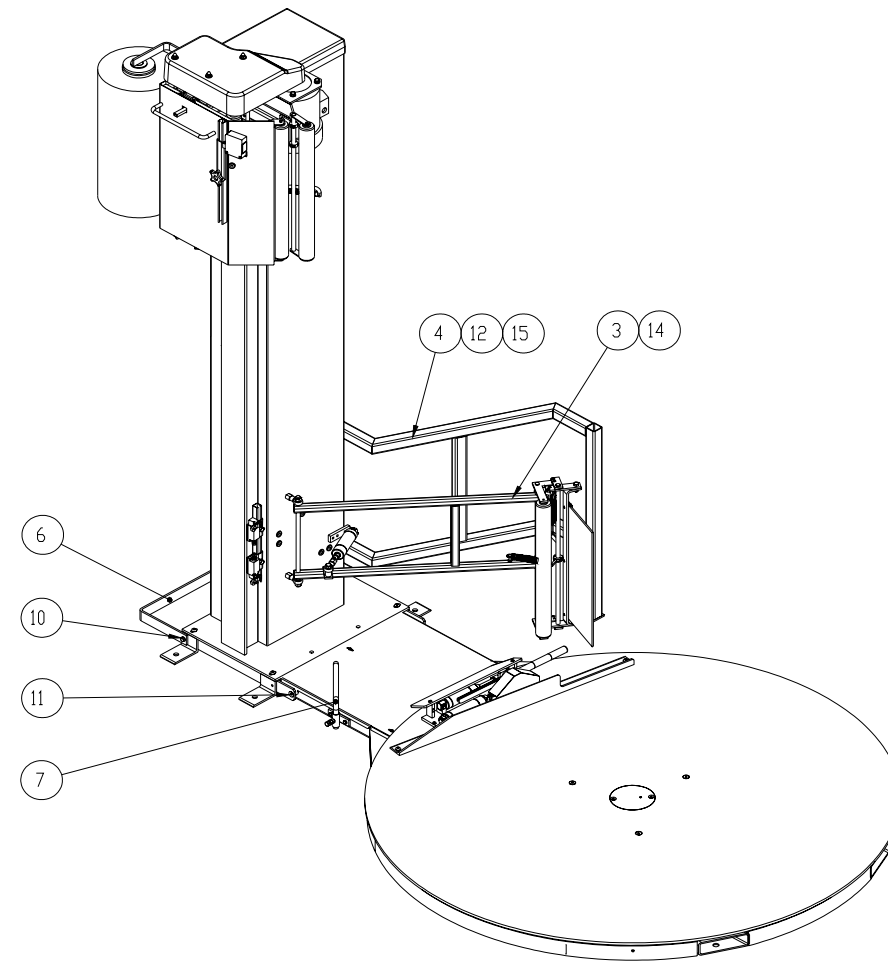
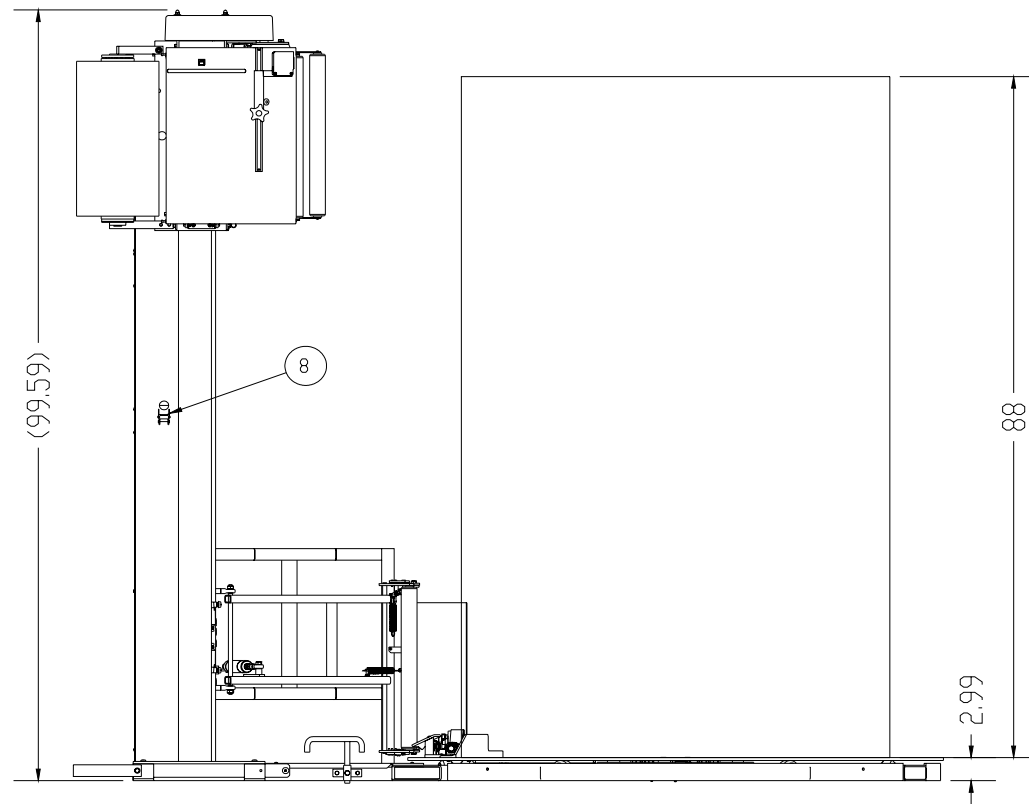
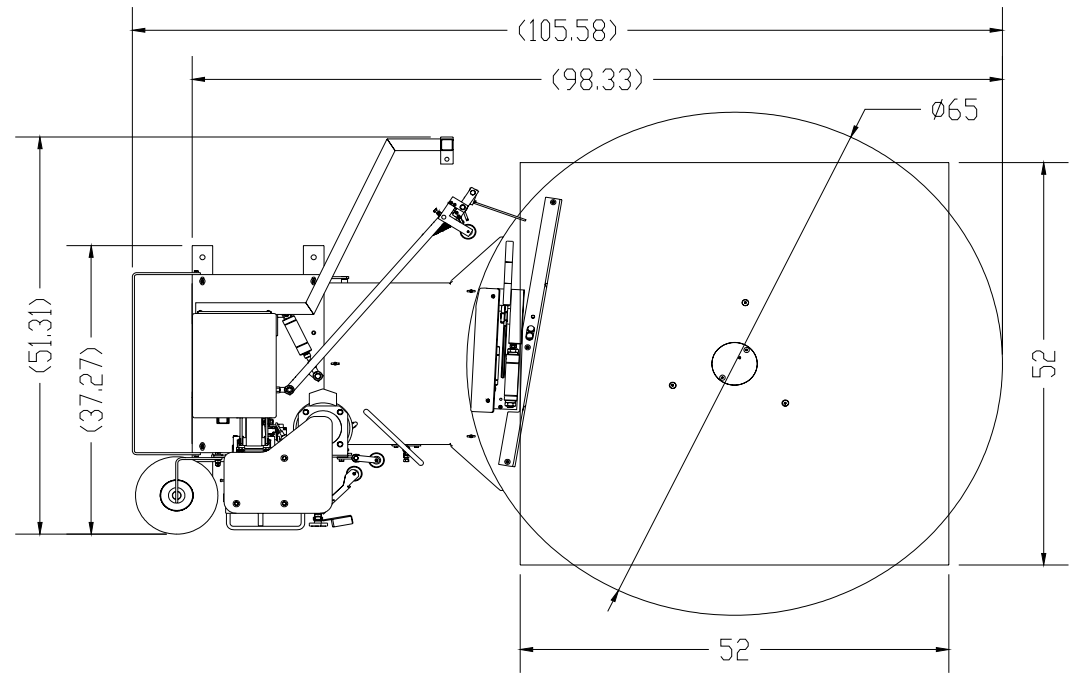
The cam followers have deep grease pockets and do not need frequent relubrication. The portion of the tower on which the cam followers run, should be cleaned and regreased every 300 hours of operation. If the machine operates in a dusty or corrosive environment the tower should be relubricated more often.

SEMI-AUTOMATIC STANDARD ASSEMBLY PART LIST

Note :

*** Quantity listed in order of part number**

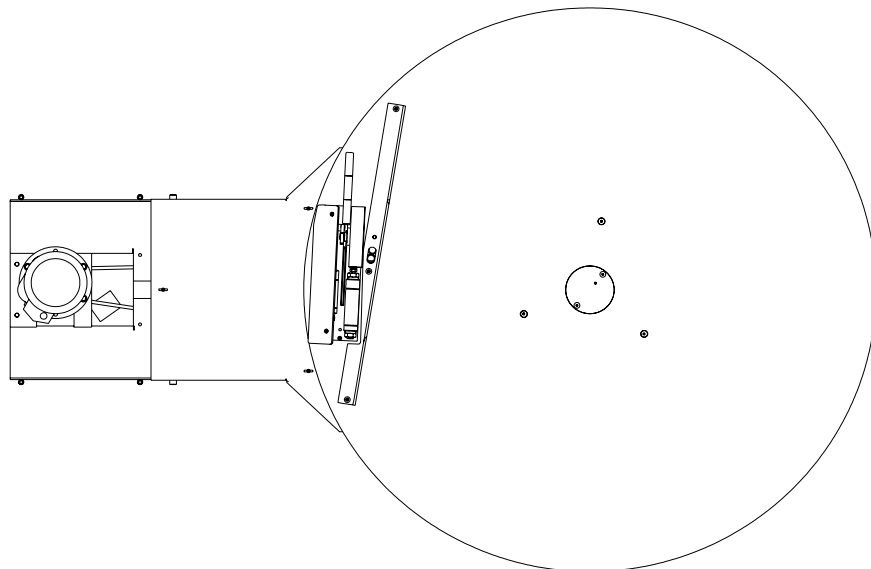
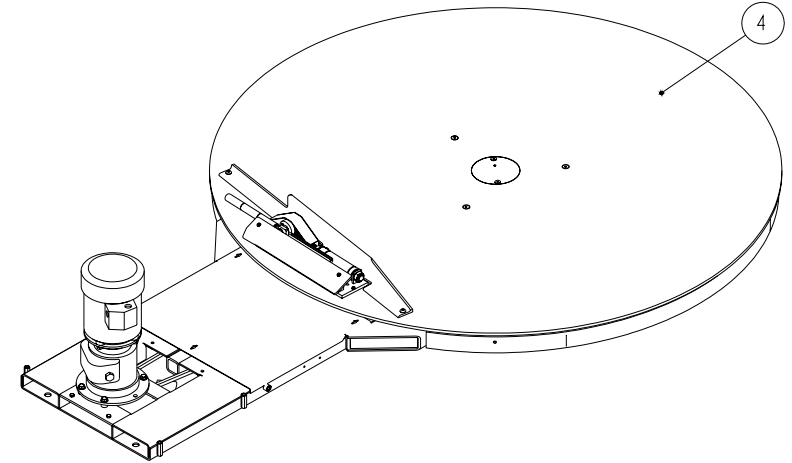
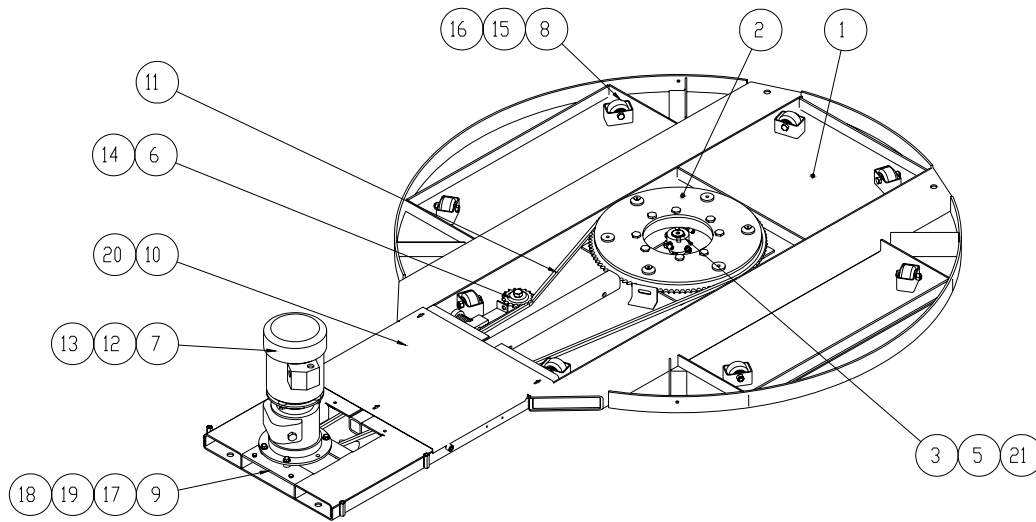
**** The names given to the parts are generic**




15	SOCKET HEAD CAP SCREW 1/4-20NC x 1/2"		010257	4
14	HEX BOLT 7/16-20 UNF x 1		015120	2
13	HEX NUT 1/4-20NF		013048	4
12	FLAT WASHER 1/4"		012221	8
11	SOCKET FLAT HEAD SCREW 3/8-16NC x 3/4"		012692	2
10	HEX BOLT 5/16-18NC x 1/2"		013454	2
9	SOCKET BUTTON HEAD CAP SCREW 3/8-16NC x 1"		017632	4
8	NYLATRAC NTR-64865 K20-4		015897	1
7	ROPING BAR ASSEMBLY		443608	1
6	BACK TOWER STOPPER		436790	1
5	INSTA THREAD - FLR - 20" CARRIAGE		443591	1
4	FIT GAIRD		443360	1
3	LPA-FILM TAIL THREATMENT		443336	1
2	LPA TOWER ASSEMBLY		443644	1
1	LPA-BASE ASSEMBLY		443642	1
#	TITLE	Length	PART NO	Q

REMARKS				
REMARKS				
SPECTRA MAX V3 - WRAPPER				
 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H1S 1P9 TEL: (450) 667-9769	TOLERANCES UNLESS OTHERWISE SPECIFIED MACHINED: ±1/64 MILLED: ±1/32 ANGLE: ±1/2° XXX: ±0.02 REFERENCE DWG:	DRAWN BY V. TELEBAK APPROVED BY	DRAWN DATE 01/17/2005 APPROVED DATE	WEIGHT (KG) 1422.32 SCALE 1:24
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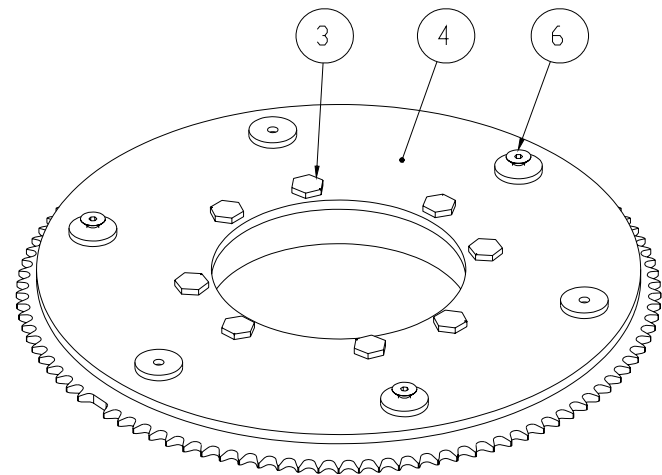
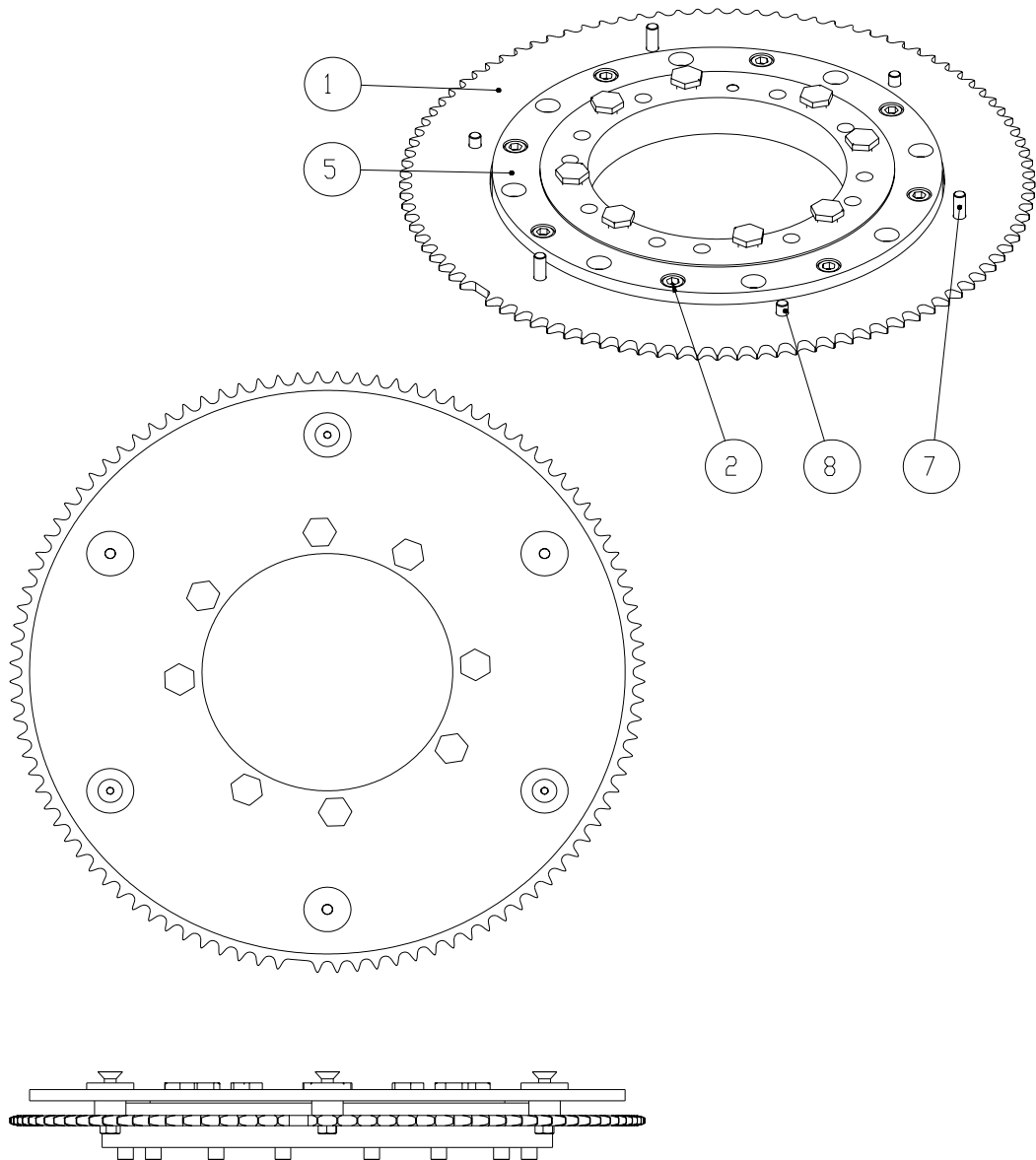
CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES ENBALLAGES ORION INC.



21	HEX BOLT 1/4-28NF x 1/2"		016264	2
20	PAN PHILIPS HEAD SCREW #10-24NC x 1/2"		012481	3
19	LOCK WASHER 1/4"		011393	2
18	HEX BOLT 1/4-20NC x 3/4"		012475	2
17	HEX NUT 1/4-20NC		012689	2
16	HEX NUT M12		013041	8
15	HEX BOLT M12 x 65mm		014214	8
14	SOCKET HEAD SHOULDER SCREW 1/2" (3/8-16NC) x 1/2"		015122	1
13	HEX BOLT 3/8-24NF x 1"		014157	4
12	FLAT WASHER 3/8"		010948	4
11	CHAINE #50		010009	1
10	BASE COVER		441096	1
9	BASE BACK COVER	7 1/2"	436438	1
8	PHENOLIC TIRE W/BEARING		429919	8
7	TURNABLE DRIVE ASS'Y		443056	1
6	CHAIN TIGHTENER ASSEMBLY		441083	1
5	AIR TUBES HOLDER	5 1/4"	443334	1
4	LPA-TURNABLE ASSEMBLY		443323	1
3	4 PASSAGES ROTORSEAL		443320	1
2	LPA-T.T. RING-BEARING ASSEMBLY		443312	1
1	LPA-BASE WELDING		443643	1
#	TITLE	Length	PART NO	Q

REMARKS				
REMARKS				
LPA-BASE ASSEMBLY				
 ORION PACKAGING INC. 2278 INDUSTRIEL L'AVANT BORDIER, CANADA, H7S 1P9 TEL: (450) 667-9169	TOLERANCES UNLESS OTHERWISE SPECIFIED FINISHED: ±0.04 MILLER: ±0.02 WELD: ±0.02 HOLE: ±0.02 HOLE: ±0.02 REFERENCE DWG.	DRAWN BY V. TELEBAK APPROVED BY	DRAWN DATE 01/18/2005 JOB NO STD	WEIGHT (G) 930.72 SCALE 1:16 SHEET 1 / 1
	MACHINE TYPE SPECTRA MAX	ASSSEMBLY DWG 443641 B	DWG SIZE B	DWG NO 443642M

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION INC.



8	HEX BOLT 3/8-24 UNF x 3/4"		016112	3
7	HEX BOLT 3/8-14 UNF x 1 1/4"		014668	3
6	SOCKET FLAT HEAD SCREW 3/8-24NF x 1"		013842	3
5	RING BEARING (PSL #90-1B20-0289-0295-2		017801	1
4	LPA TURNTABLE SUPPORTING DISK		443316	1
3	SPECIAL HEX BOLT 5/8-11 UNC		443315	8
2	SPECIAL SOCKET HEAD CAP SCREW 1/2-20 UNF		443314	8
1	SPROCKET 50A96 (LPA)		443313	1
#	TITLE	Length	PART NO	Q

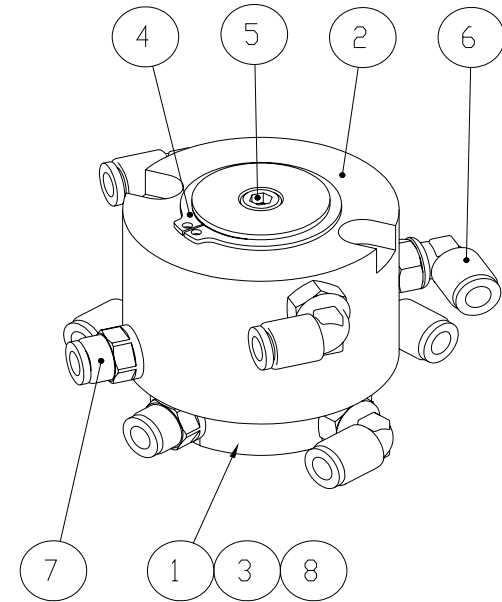
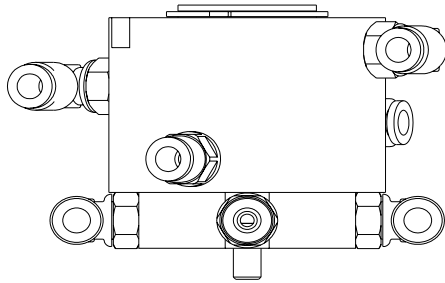
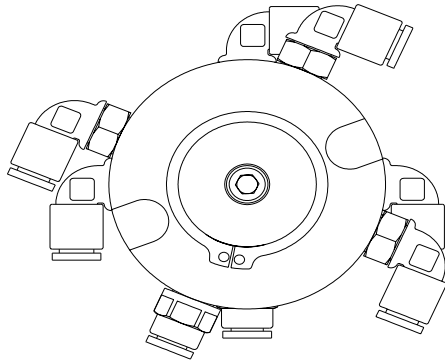
REMARKS

REPLACES LA66-13786-BA-200-00-A-A

LAP-T.T. RING-BEARING ASSEMBLY

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY ROGER F.	DRAWN DATE 03-04-2004	WEIGHT (lb) 79.93
	MACHINED - .11/.32 WELDED - .11/16 ANGLE - 15/16 XXX - .010 XXXX - .005 REFERENCE DWG.	APPROVED BY	APPROVED DATE	SCALE 1:6
	MACHINE TYPE SPECTRA MAX	JOB NO.	DWG SIZE A	REV. B
	ASSEMBLY DWG 443310 B	DWG NO. 443312M		

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION




8	SOCKET HEAD SET SCREW #10-32NF x 1/4"		017987	4
7	MALE CONNECTOR 1/4 OD x 1/8 NPT		011986	2
6	SWIVEL MALE ELBOW 1/4 OD x 1/8NPT		017630	6
5	SOCKET HEAD CAP SCREW 1/4-28 UNF x 2 1/2"		017367	1
4	EXTERNAL RETAINING RING - 1 1/4" SIZE		013655	1
3	O-RING #121, 1 1/4" OD x 3/32" WIDTH		017933	5
2	4 PASSAGES ROTOR SEAL SHELL	1 3/4"	443322	1
1	4 PASSAGES ROTOR SEAL CORE	2.440	443321	1
#	TITLE	Length	PART NO	Q

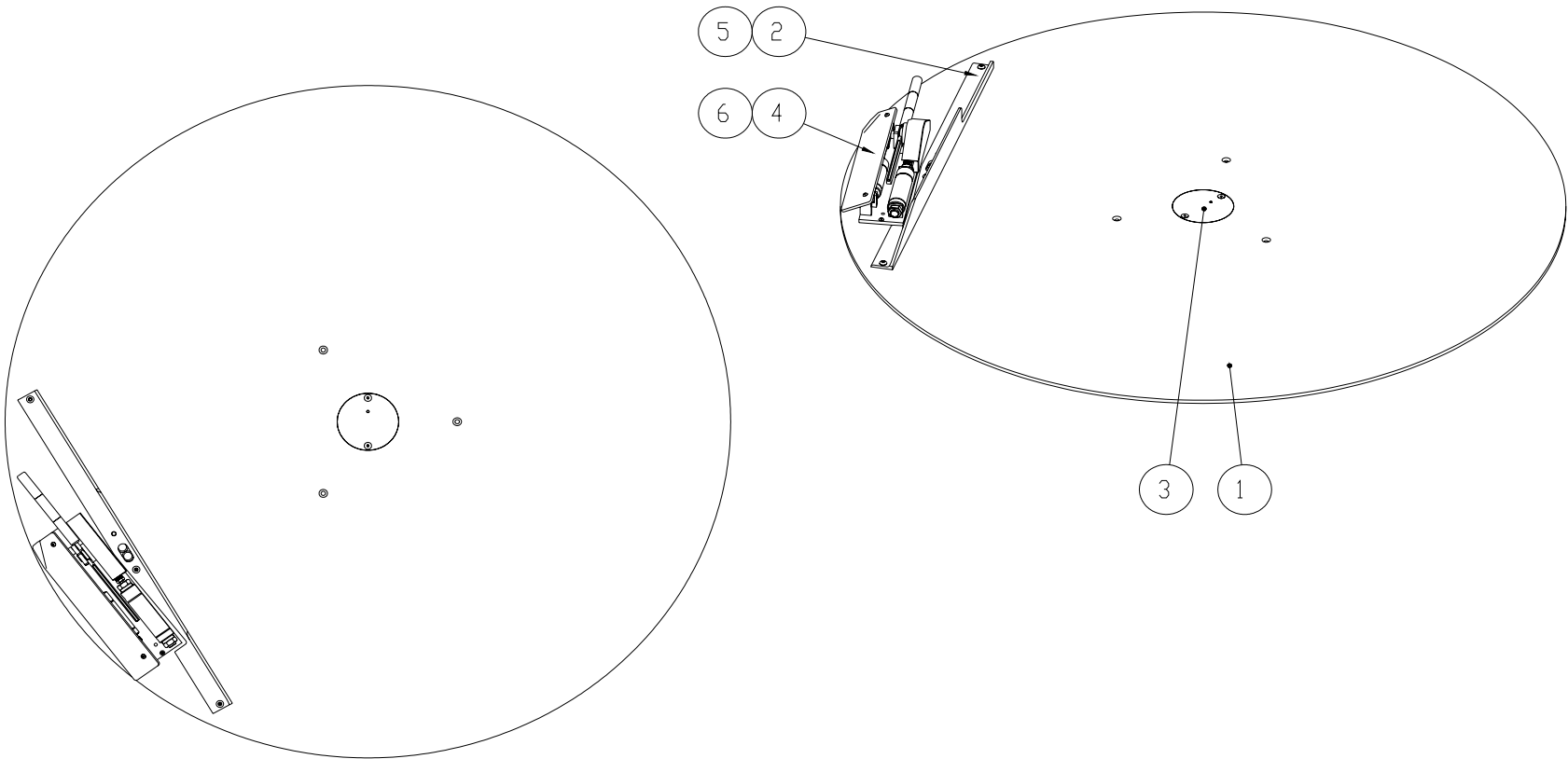
REMARKS

REPLACES LA66-13578-RT-000-00-A-A

4 PASSAGES ROTORSEAL

 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (450) 667-9769	TOLERANCES UNLESS OTHERWISE SPECIFIED MACHINED : ±1/32 WELDED : ±1/16 ANGLE : ±1/16 XXX : ±0.02 XXXX : ±0.015 REFERENCE DWG.		DRAWN BY ROGER F.	DRAWN DATE 06-05-2004	WEIGHT (lb) 1.06
	MACHINE TYPE 60°		APPROVED BY	APPROVED DATE	SCALE 1:2
	ASSEMBLY DWG 443310 B		DWG SIZE A	JOB NO. 13578	SHEET 1 / 1
	REFERENCE DWG.		DWG NO. 443320	REV. B	

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION



6	SOCKET BUTTON HEAD CAP SCREW 1/4-28NF x 3/4"		017305	2
5	SOCKET BUTTON HEAD CAP SCREW 3/8-24 UNF x 3/4		017360	3
4	FILM CLAMP ASSEMBLY		443330	1
3	TURNTABLE PLUG ASSEMBLY		443327	1
2	PALLET POSITIONER	35	443326	1
1	SPECTRA-MAX TURNTABLE DISK		443324	1
#	TITLE	Length	PART NO	Q

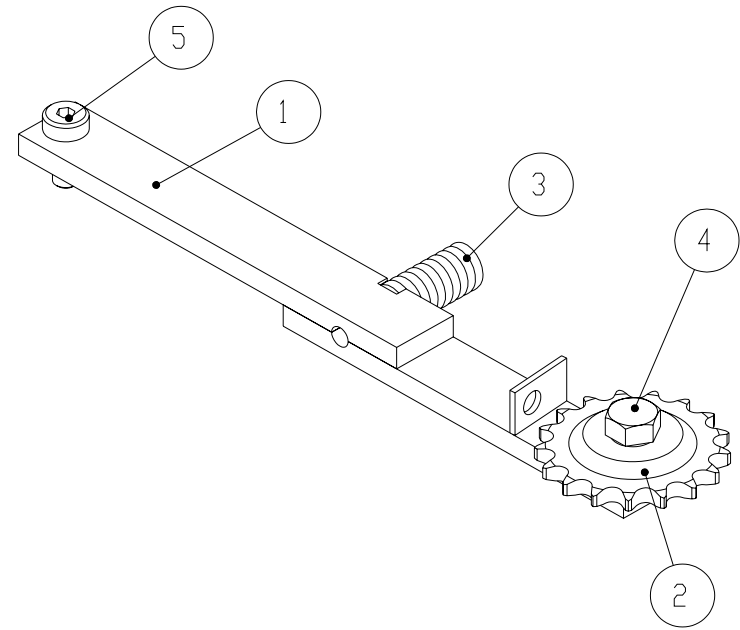
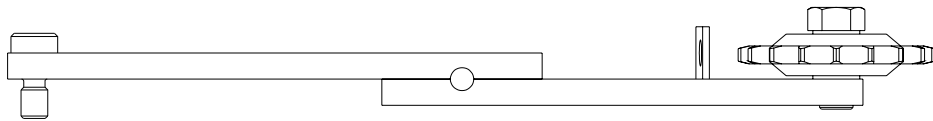
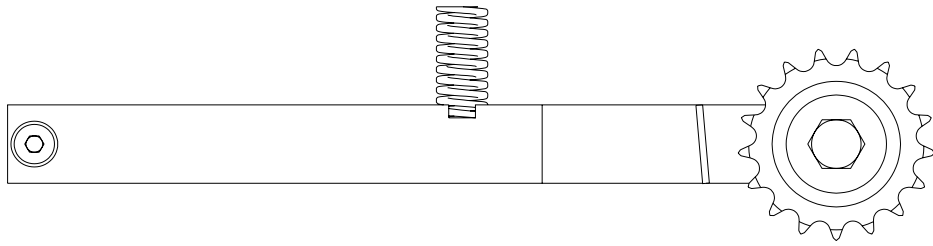
REMARKS

REPLACES LA66-13786-TT-000-00-A-A

LPA-TURNTABLE ASSEMBLY

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY ROGER F.	DRAWN DATE 03/06/2004	WEIGHT (lbs) 0.00
	MACHINED - H1/32	APPROVED BY	APPROVED DATE	SCALE 1:16
	WELDED - H1/16	MACHINE TYPE SPECTRA MAX	JOB NO. 13786	SHEET 1 / 1
	ANGLE - H1/16 XXX - H1/2 XXXX - H1/8	REFERENCE DWG	ASSEMBLY DWG 443310 B	DWG SIZE A
				REV. B

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION



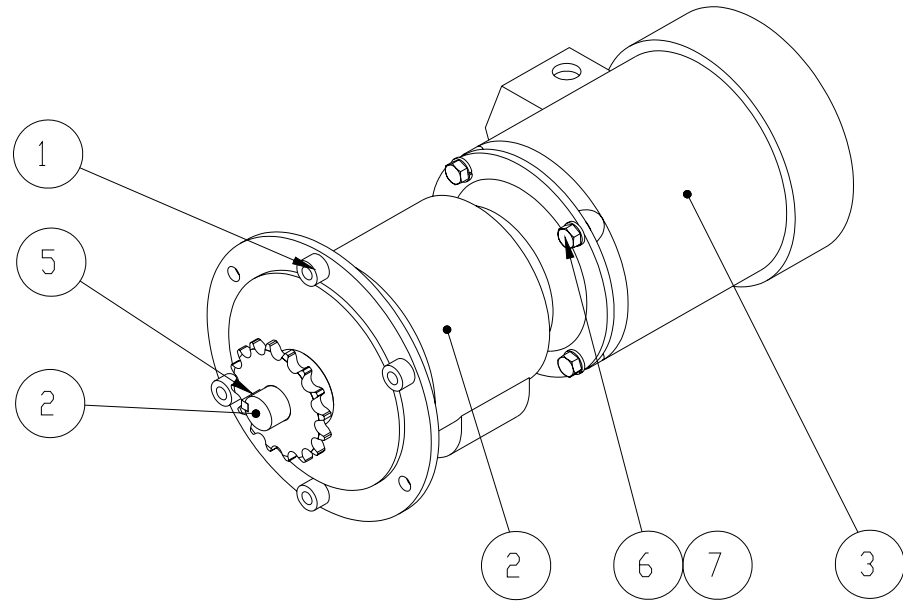
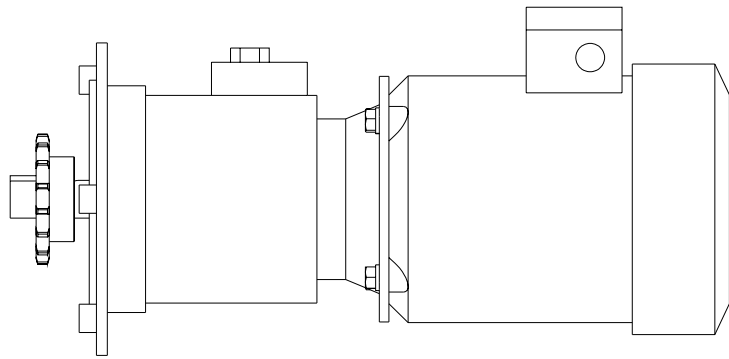
5	SOCKET HEAD SHOULDER SCREW 5/8 (1/2-13NC) x 1/2"		015122 015122	1
4	HEX BOLT 5/8-18 UNC x 1 1/2"		011366	1
3	SPRING MHR100350		017284	1
2	IDLE SPROCKET AG2416		010008	1
1	CHAIN TIGHTENER ARM		430035	1
#	TITLE	Length	PART NO	Q

REMARKS
REPLACES 430034

CHAIN TIGHTENER ASSEMBLY

 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769	TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN BY ROGER F.	DRAWN DATE 04/13/2004	WEIGHT (lb) 5.67
	MACHINED : ±1/32		APPROVED BY	APPROVED DATE	SCALE 1:4
	WELDED : ±1/16	MR 60°	MACHINE TYPE SPECTRA II	JOB NO.	SHEET 1 / 1
	ANGLE : ±1/16		ASSEMBLY DWG 430002	DWG SIZE A	DWG NO. 441083M
XXX : ±0.02		REFERENCE DWG.			

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION



7	LOCK WASHER 3/8"		011390	4
6	HEX BOLT 3/8-16NC x 1"		010293	4
5	SQ. KEY STOCK 1/4" x 1/4"	1 1/2"	010309	1
4	SPROCKET 50B16		013997	1
3	EL. MOTOR 1/2HP, 208VAC, 1725RPM		015225	1
2	VERTICAL REDUCER RH-100-201-1"-56C-F-VB		016580	1
1	SPACER 3/4 OD x 3/8 ID x 3/8 LG	7/16"	434081	4
#	TITLE	Length	PART NO	Q

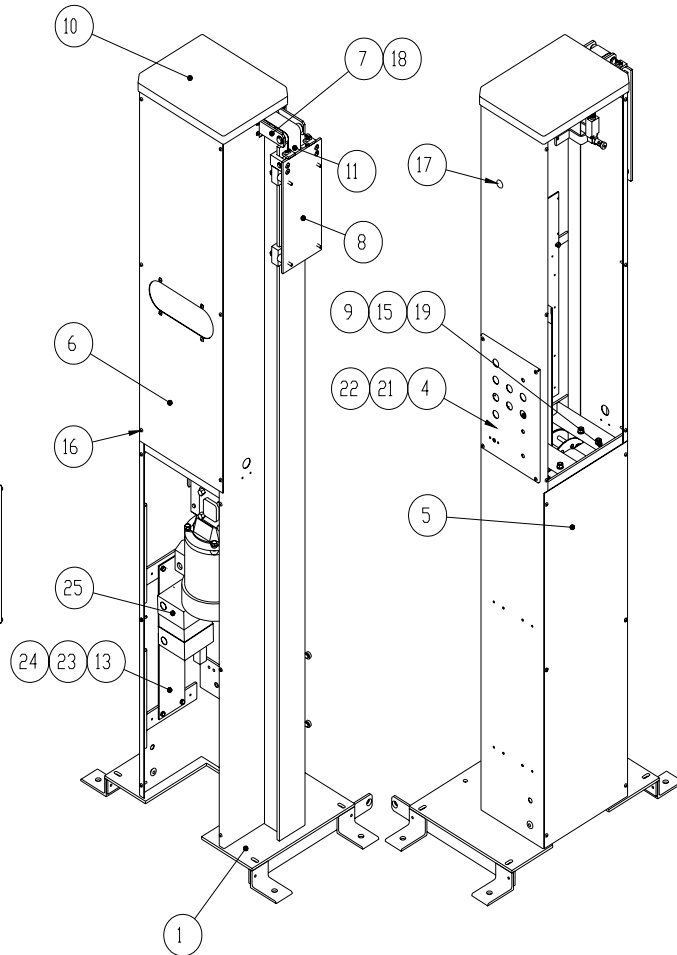
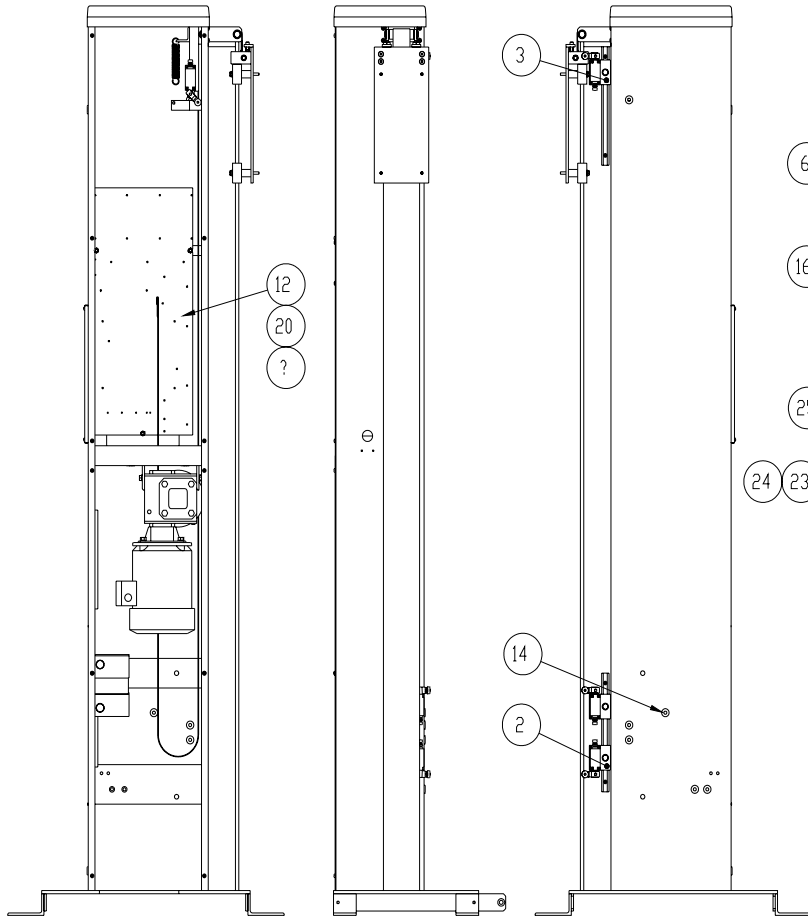
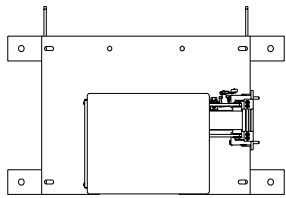
REMARKS

REMARKS

TURNTABLE DRIVE ASS'Y

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY V. TELEBAK	DRAWN DATE 11/10/2004	WEIGHT (lb) 58.37
	MACHINED : ±1/32 WELDED : ±1/16 ANGLE : ±1/16 XXX : ±0.02 XXXX : ±0.005	APPROVED BY	APPROVED DATE	SCALE 1:6
	REFERENCE DWG.	MACHINE TYPE SPECTRA II	JOB NO. 14738	SHEET 1/1
		ASSEMBLY DWG 443054	DWG SIZE A	DWG NO. 443056

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION



25	TRANSFORMER MC250F		018394	1
24	LOCK WASHER 1/4"		011393	4
23	HEX BOLT 1/4-20NC x 1/2"		012722	6
22	HEX NUT #10-32NF		013451	4
21	SPANNER TRUSS HEAD SCREW #10-32NF x 3/4"		017295	4
20	HEX NUT 1/4-20NC		012689	5
19	LOCK WASHER 3/8"		011390	4
18	BUTTON SOCKET HEAD CAP SCREW 1/4-28NF x 1/2"		017304	4
17	SNAP-IN FINISHING PLUG UNVENTED 11/16"		018427	1
16	PAN PHILIPS HEAD SCREW #10-24NF x 3/4"		013351	18
15	HEX NUT 3/8-24NF		012582	4
14	GROMMET 5/16 ID x 9/16 GROOVE DIA x 3/16 GROOVE W		014502	7
13	TRANSFORMER HOLDER BRACKET	19	443683	1
12	ELECTRICAL INSIDE PANEL PLATE 25 x 11		443629	1
11	CARRIAGE BELT	150 3/64"	436474	1
10	TOWER COVER		433976	1
9	CARRIAGE BELT DRIVE		443441	1
8	CARRIAGE ATTACHMENT ASSEMBLY		430020	1
7	BELT IDLER ROLLER ASS'Y		436413	1
6	TOWER BACK WALL TOP ASS'Y		443626	1
5	TOWER BACK WALL		436412	1
4	ELECTRICAL PANEL		443193	1
3	TOP LIMIT SWITCH ASS'Y		443234	1
2	BOTTOM LIMIT SWITCH ASS'Y		443231	1
1	LPA-TOWER WELDING		443645	1
H	TITLE	Length	PART NO	Q

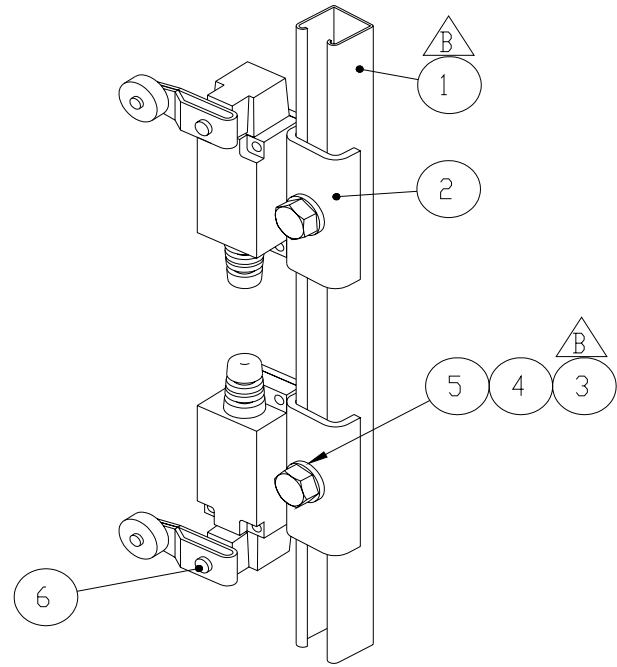
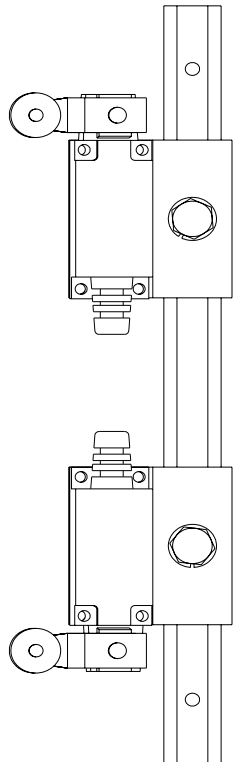
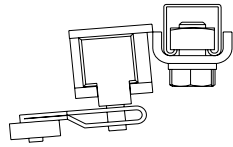
REMARKS


REMARKS

LPA TOWER ASSEMBLY

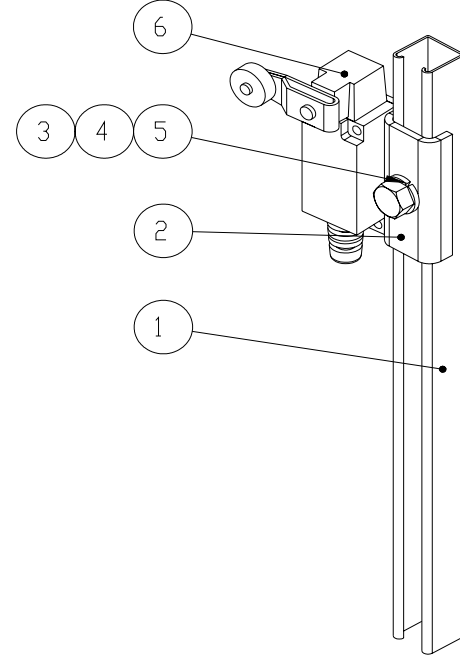
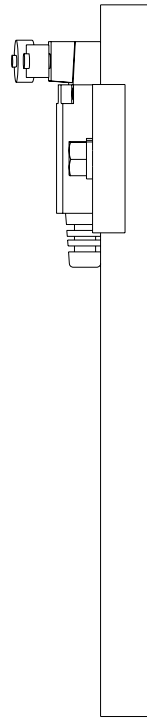
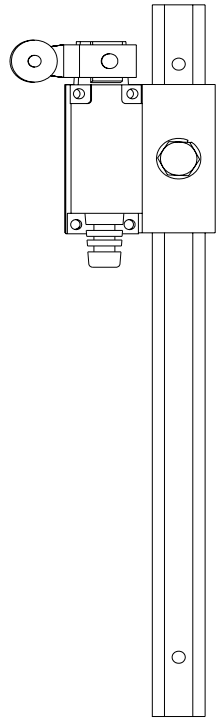
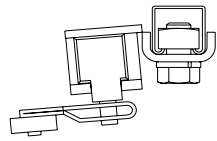
<p>ORION INDUSTRIAL SUPPLY DIERC. CANADA 115 1P3 TEL: (420) 667-9769</p>	<p>TELERANCES UNLESS OTHERWISE SPECIFIED</p> <p>FINISHES - 1/16" MILS - 1/32" MILS - 1/64" MILS - 1/8" MILS - 1/16" MILS - 1/32"</p>	<p>DRAWN BY V. TELEBAK</p> <p>APPROVED BY</p>	<p>DRAWN DATE JAN/19/2005</p> <p>APPROVED DATE</p>	<p>WEIGHT NET 271.98</p> <p>SCALE 1:14</p>
	<p>ORION TYPE SPECTRA MAX</p> <p>REFERENCE DIM 443641 B</p>	<p>ORION NO B</p> <p>ORION NO B</p>	<p>ORION NO STD</p> <p>ORION NO 443644M</p>	<p>ORION NO B</p>


CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES DRON INC.



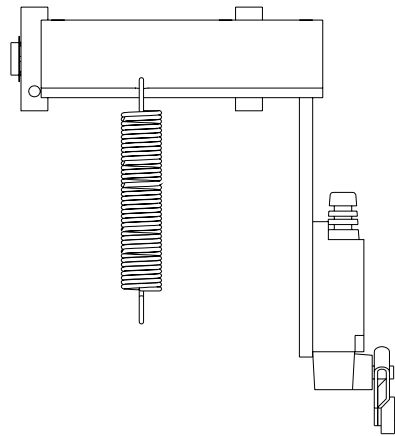
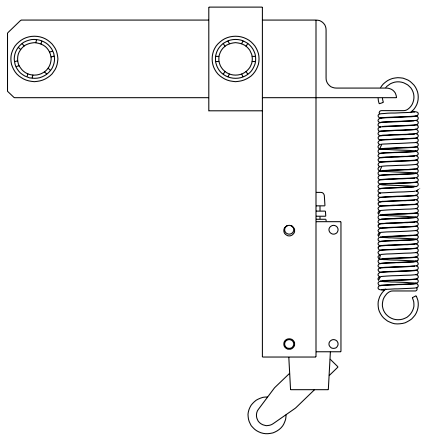
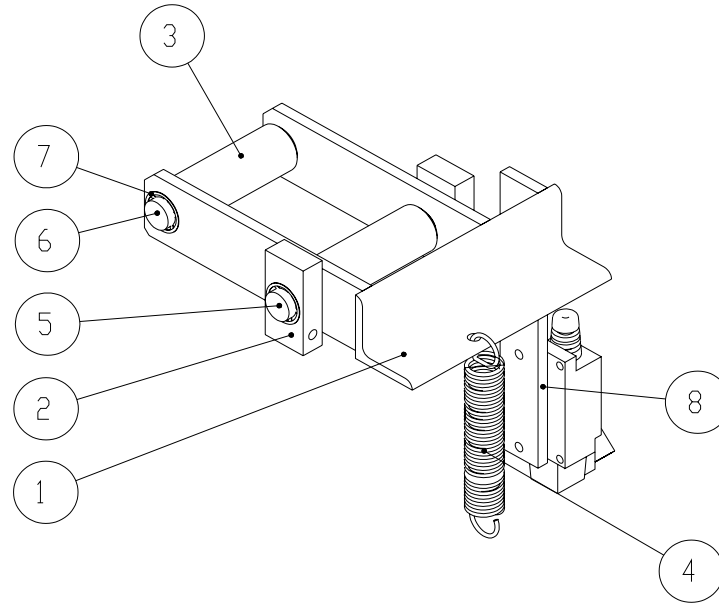
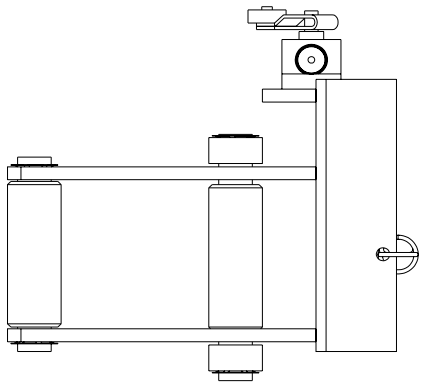
6	LIMIT SWITCH IND/INC		012006	2	
5	LOCK WASHER 3/8"		011390	2	
4	HEX BOLT 3/8-16NC x 3/4"		012474	2	
3	FLAT SQUARE NUT 3/8-16NC		017853	2	
2	LIMIT SWITCH BRACKET ASS'Y		443233	2	
1	CHANNEL FOR CARRIAGE LIMIT SWITCHES	12"	443232	1	
#	TITLE	Length	PART NO	Q	
REMARKS					
REMARKS					
BOTTOM LIMIT SWITCHS ASS'Y					
 <p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED MACHINED : ±1/32 WELDED : ±1/16 ANGLE : ±1/16 XXX : ±0.02 XXXX : ±0.005 REFERENCE DWG.		DRAWN BY S.KUBICKA APPROVED BY	DRAWN DATE 12/06/2004 APPROVED DATE	WEIGHT (lb) 2.83 SCALE 1:3 SHEET 1 / 1
	MACHINE TYPE SPECTRA MAX		JOB NO. 13578		
	ASSEMBLY DWG 443227 B		DWG SIZE A	DWG NO. 443231	
					REV. C

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION INC.



6	LIMIT SWITCH 1ND/INC		012006	1
5	LOCK WASHER 3/8"		011390	1
4	HEX BOLT 3/8-16NC x 3/4"		012474	1
3	FLAT SQUARE NUT 3/8-16NC		017853	1
2	LIMIT SWITCH BRACKET ASS'Y		443233	1
1	CHANNEL FOR CARRIAGE LIMIT SWITCHES	12"	443232	1
#	TITLE	Length	PART NO	Q
REMARKS				
REMARKS				
TOP LIMIT SWITCH ASS'Y				
 PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (450) 667-9769	TOLERANCES UNLESS OTHERWISE SPECIFIED MACHINED : ±1/32 VELD : ±1/16 ANGLE : ±15/16 XXX : ±0.02 XXXX : ±0.05 REFERENCE DWG	DRAWN BY S.KUBICKA APPROVED BY	DRAWN DATE 12/03/2004 APPROVED DATE	WEIGHT (lb) 1.59 SCALE 1:3 SHEET 1 / 1
	MACHINE TYPE SPECTRA MAX	JOB NO 13578		
	ASSEMBLY DWG 443227 B	DWG SIZE A	DWG NO 443234M	REV. B

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION INC.



8	LIMIT SWITCH IND/INC		012006	1
7	RETAINING RING EXTERIOR 5/8" - R6100-62		017624	4
6	CRS ROD 5/8"Ø	3 3/4"	RC1902	1
5	CRS ROD 5/8"Ø	4 3/4"	RC1902	1
4	YELLOW TENSION SPRING 3/4"ØD x 0.080" WIRE		010047	1
3	BELT ROLLER	2 13/16"	436421	2
2	BEARING PLATE	2"	430022	2
1	BELT IDLER ROLLER BRACKET		436420	1
#	TITLE	Length	PART NO	Q

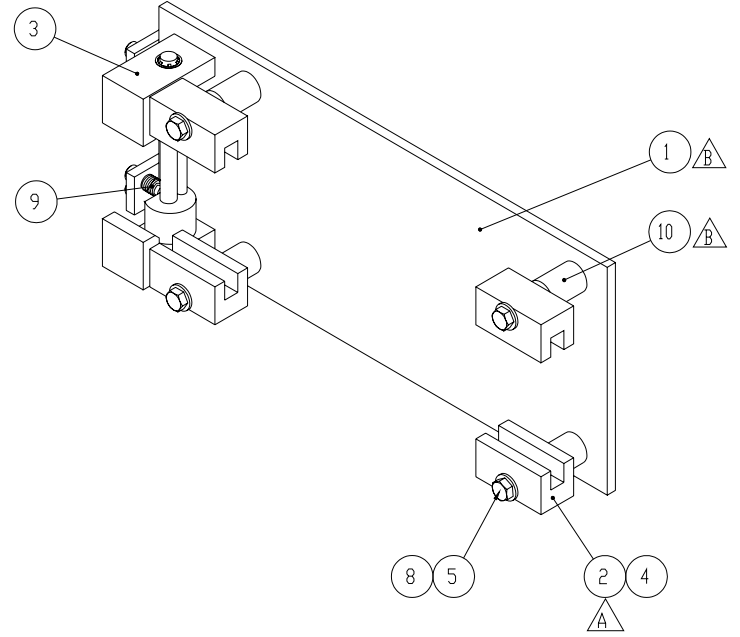
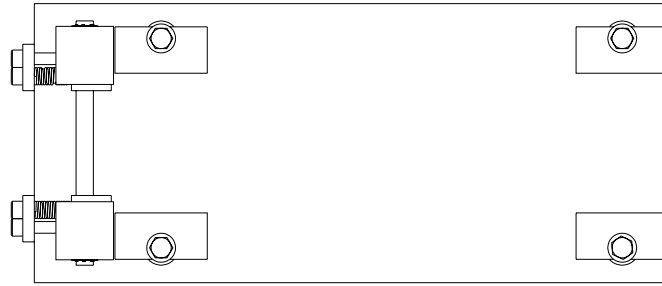
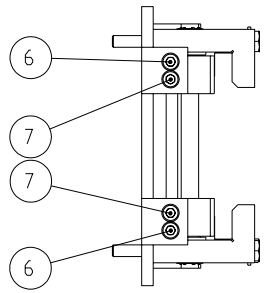
REMARKS

REMARKS

BELT IDLER ROLLER ASS'Y

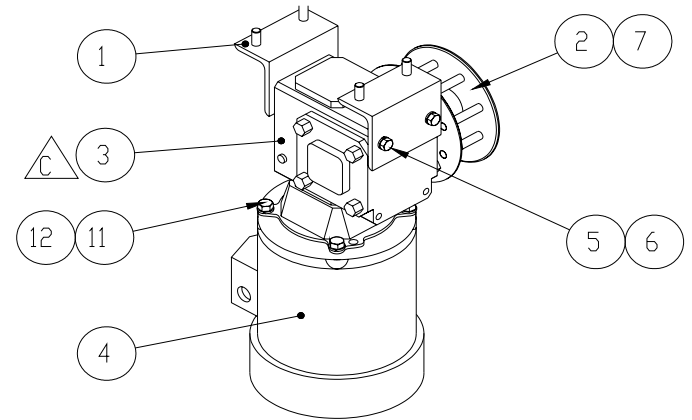
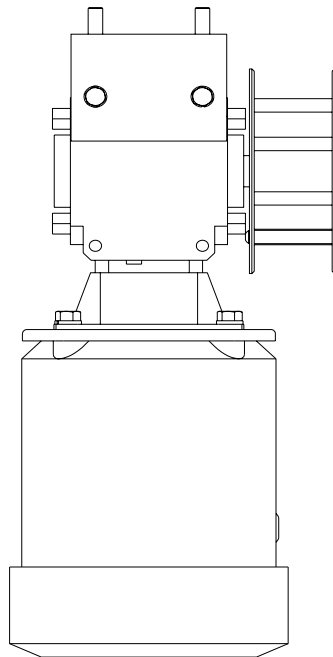
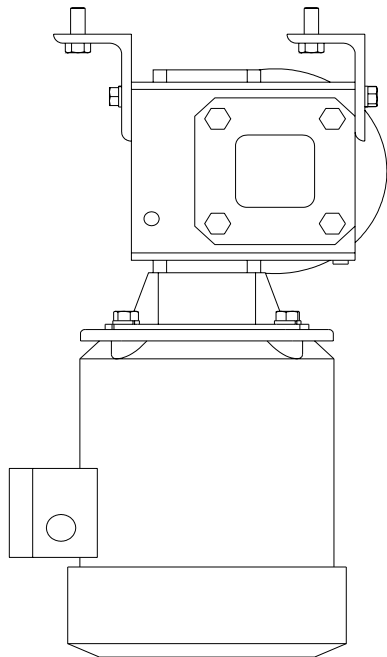
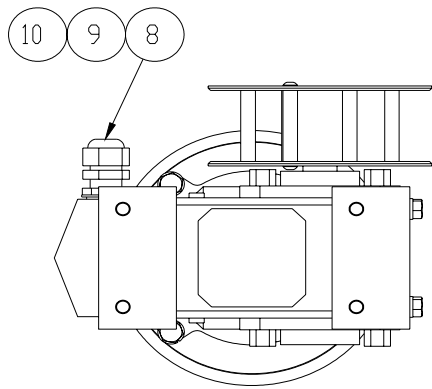
<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED MACHINED - 11/32 WELDED - 1/16 ANGLES - 15/16 XXX - 1002 XXXX - 1005 REFERENCE DWG.		DRAWN BY ROGER F.	DRAWN DATE 11/19/2002	WEIGHT (lb) 4.71
			APPROVED BY	APPROVED DATE	SCALE 1:4
			MACHINE TYPE SPECTRA II	JOB NO. 12812	SHEET 1/1
			ASSEMBLY DWG 436404	DWG SIZE A	DWG NO. 436413

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION



11	SOCKET FLAT HEAD SCREW 1/4-28NF x 3/4"			017399	4
10	SPACER 3/4 OD x 1/4 ID	1.030		434103	4
9	SPRING #23			013995	2
8	FLAT WASHER 1/4"			012221	4
7	SOCKET HEAD CAP SCREW 1/4-28NF x 3/4"			017398	2
6	SOCKET HEAD CAP SCREW 1/4-28NC x 1"	1"		014254	2
5	HEX BOLT 1/4-28NF x 3" FULL THREAD			018276	4
4	SPACER 3/8 OD x 1/4 ID	1.020		434102	4
3	SAFETY LOCK			430031	1
2	SLIDE BEARING	2"		439161	4
1	CARRIAGE ATTACHMENT BACK PLATE			430028	1
#	TITLE	Length		PART NO	0
REMARKS					
REMARKS					
CARRIAGE ATTACHMENT ASSEMBLY					
 ORION PAC-MAN INC. 2270 INDUSTRIAL BLVD. QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9789	TOLERANCES UNLESS OTHERWISE SPECIFIED FINISHES UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES DIMENSIONS IN MILLIMETERS	DRAWN BY ROGER F. APPROVED BY SPECTRA II ASSSEMBLY DWG 430011	DRAWN DATE 03/25/2002 APPROVED DATE 11295 DWG NO 430020	WEIGHT (LBS) 8.53 SCALE 1:3 SHEET 1 / 1	REV. C
			DWG SIZE B		

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION INC.



12	LOCK WASHER 3/8"		011390	4
11	HEX BOLT 3/8-16NC x 1"		010293	4
10	SEALING WASHER 1/2"		010650-3	1
9	NUT LOCK 1/2"		010650-2	1
8	PLASTIC CONNECTOR 1/2"		010650-1	1
7	SQ. KEY STOCK 3/16" x 3/16"	1 1/4"	010295	1
6	LOCK WASHER 5/16"		012724	4
5	HEX BOLT 5/16-18NC x 1"		010316	4
4	EL. MOTOR 1/2HP, 208VAC, 1725RPM		015225	1
3	REDUCER CFC-175, 50:1, ASS'Y-2		015700	1
2	BELT WHEEL		430024	1
1	REDUCER BRACKET		436439	2
#	TITLE	Length	PART NO	Q

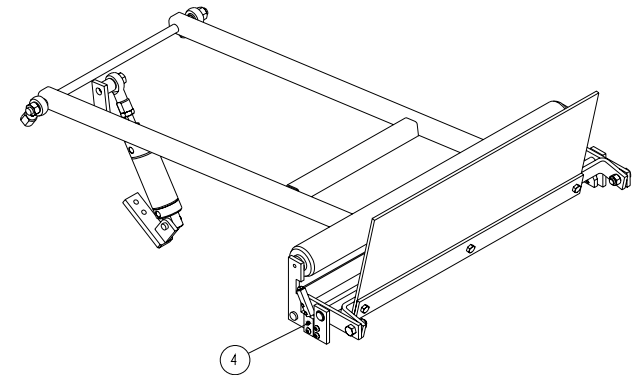
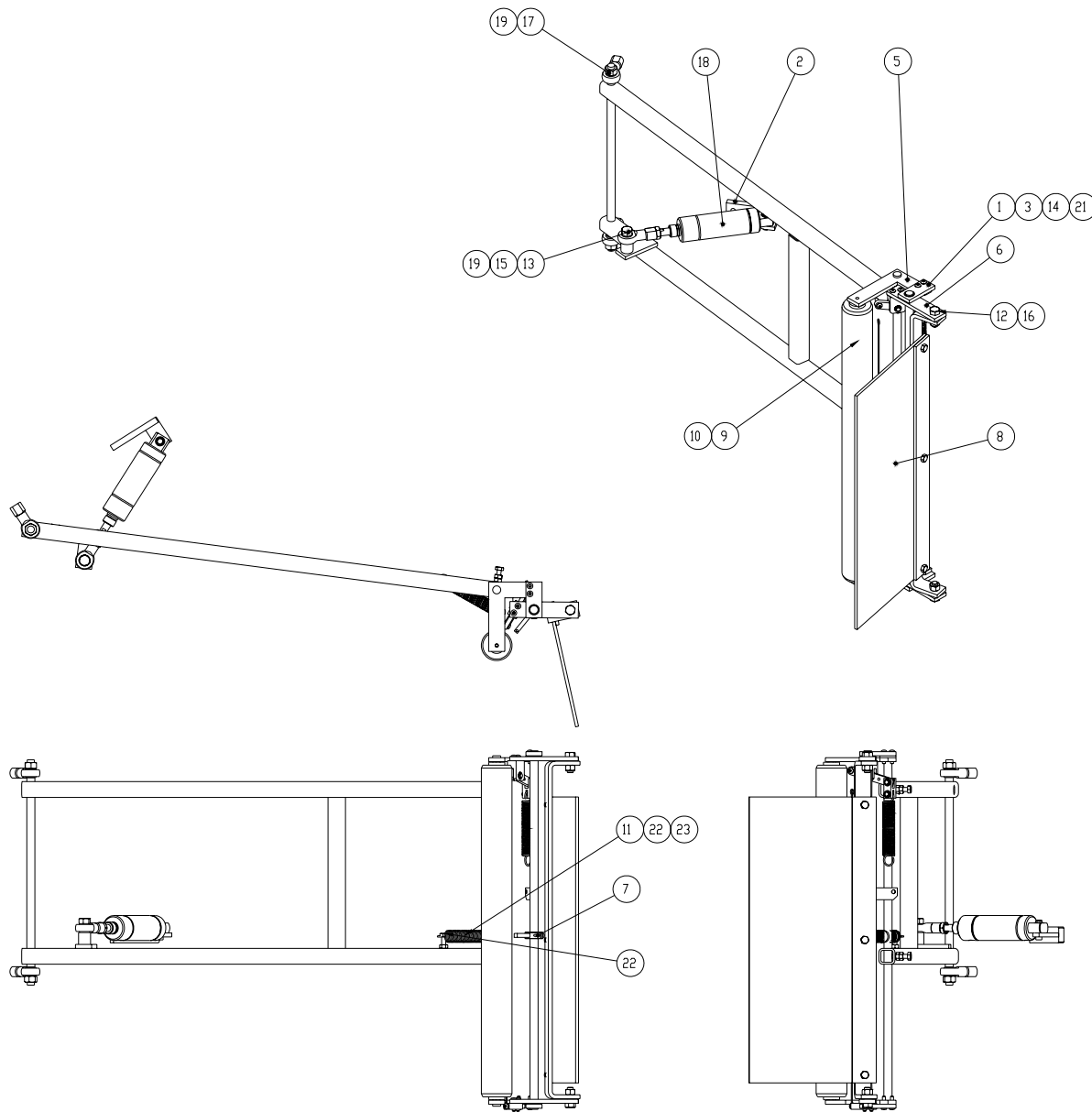
REMARKS

REMARKS

CARRIAGE BELT DRIVE

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY M.MIERNIK	DRAWN DATE 12/20/2004	WEIGHT (kg) 33.97
	MACHINED - ±1/32 WELDED - ±1/16 ANGLE - 15/16 XXX - ±0.02 XXXX - ±0.005 REFERENCE DWG.	APPROVED BY	APPROVED DATE	SCALE 1:5
	MACHINE TYPE SPECTRA II, MAX	JOB NO	SHEET 1/1	
	ASSEMBLY DWG 443622	DWG SIZE A	DWG NO 443441	REV. C

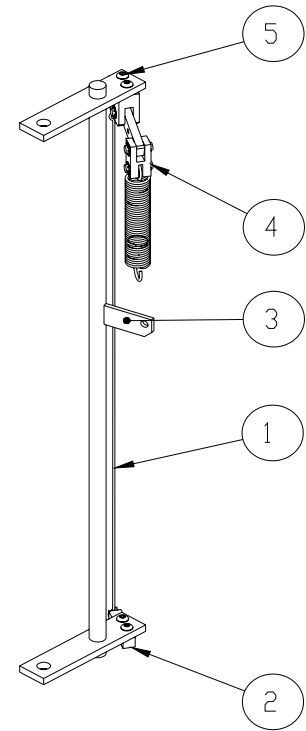
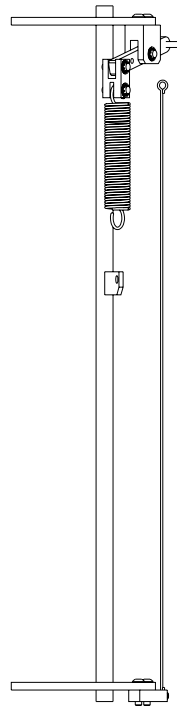
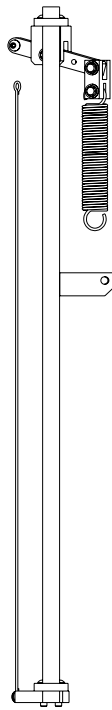
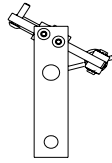
INC. CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES EMBALLAGES ORION



23	HEX NUT 1/4-28NF		013048	3
22	HEX BOLT 1/4-28 UNF x 1"		012722	3
21	FLANGE BRONZE BUSHING		443460	2
20	HEX JAM NUT 7/16-20NF		012954	1
19	ROD END CW-7		014229	3
18	AIR CYL., DBL ACTING, 1 1/2" B, 2" STROKE, REAR PIVOT MOUNT		017525	1
17	HEX NUT 7/16-20		010262	2
16	HEX NUT 3/8-24NF		012582	2
15	SELF SEATING RETAINING RING 3/8"		014988	1
14	SOCKET BUTTON HEAD CAP SCREW #10-32 UNF x 3/4"		014313	5
13	HEX BOLT 7/16-20 UNF x 1		015120	1
12	HEX BOLT 3/8-24NF x 1"		014157	2
11	YELLOW TENSION SPRING 3/4"OD x 0.080" WIRE		010047	1
10	CONVEYOR ROLLER "INTERROLL" SERIE 1.600		015153	1
9	IDLE ROLLER SHAFT - 21 5/16" LG		413249	1
8	FILM BRUSH ASSEMBLY		443357	1
7	SPRING ATTACHMENT		443356	1
6	FILM CUTTER ASSEMBLY		443346	1
5	FILM TAIL TREATMENT CRADLE		443341	1
4	CUTTER BUMPER		443340	1
3	DUAL HOLES SPACER		443339	1
2	AIR CYLINDER ATTACHMENT		443338	1
1	CUTTER BRACKET		443337	2
#	TITLE	Length	PART ND	0

REMARKS				
REPLACES LA66-13786-FT-000-00-B-A				
LPA-FILM TAIL TREATMENT				
 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAIL SHERBROOKE, QUÉBEC, CANADA J5R 5P9 TEL: (450) 667-9169	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY ROGER F.	DRAWN DATE MAR/06/2004	WEIGHT CAD 28.19
	MACHINES: 15/24 MILLER: 15/22 ANIL: 15/22 LBI: 15/22 LBI: 15/22 LBI: 15/22 LBI: 15/22 LBI: 15/22	APPROVED BY	APPROVED DATE	SCALE 1:8
	MACHINE TYPE SPECTRA MAX	JOB NO 13786	DWG SIZE B	DWG NO 443336M
	REFERENCE DWG	ASSSEMBLY DWG 443309 B	DWG SIZE B	DWG NO 443336M

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#	TITLE	Length	PART NO	Q
5	SOCKET BUTTON HEAD CAP SCREW #10-32 UNF x 3/4"		014313	6
4	CUTTING WIRE ATTACHMENT		443352	1
3	CUTTER BRACKET		443349	1
2	WIRE ATTACHMENT	1 5/8"	443348	1
1	CUTTING WIRE		443347	1

REMARKS

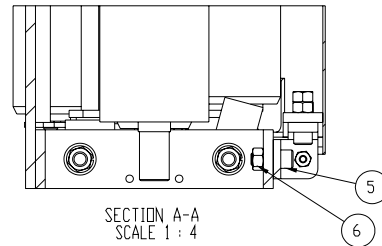
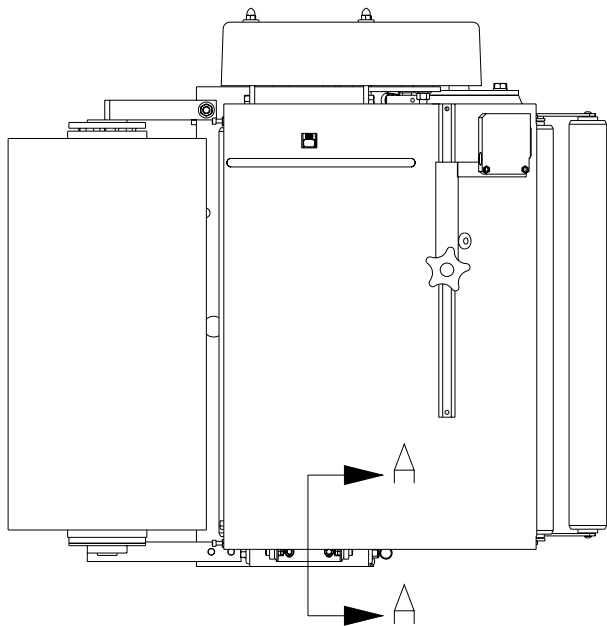
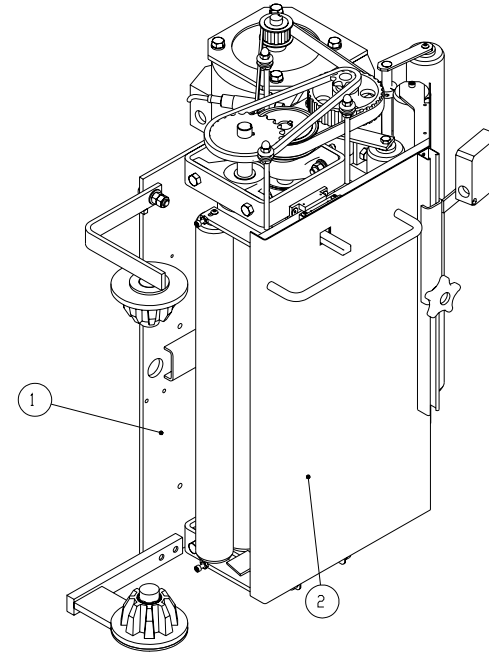
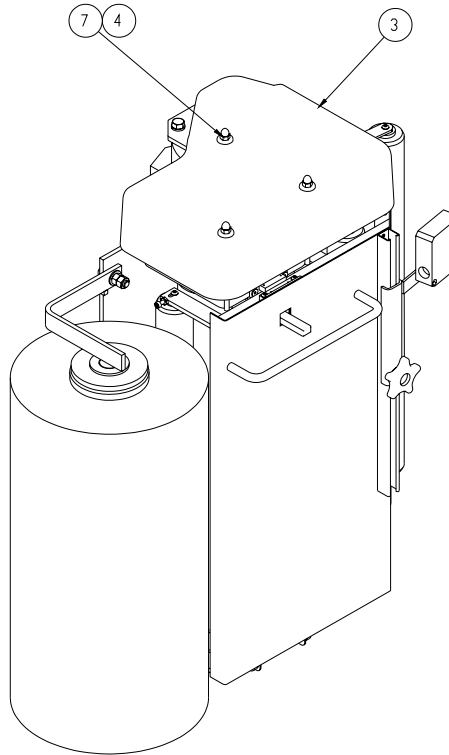
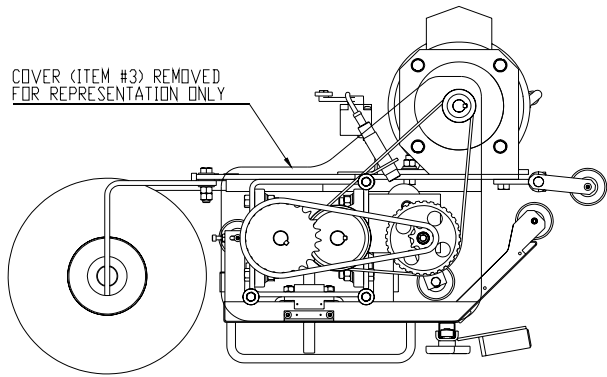
REMARKS

REPLACES LA66-13786-FT-200-00-A-A

FILM CUTTER ASSEMBLY

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	<p>TOLERANCES UNLESS OTHERWISE SPECIFIED</p>	<p>DRAWN BY ROGER F.</p>	<p>DRAWN DATE 01/26/2004</p>	<p>WEIGHT (lb) 2.46</p>
	<p>MACHINED : ±1/32</p>	<p>APPROVED BY</p>	<p>APPROVED DATE</p>	<p>SCALE 1:6</p>
	<p>ANGLE : ±1/16</p>	<p>MACHINE TYPE SPECTRA MAX</p>	<p>JOB NO. 13786</p>	<p>SHEET 1/1</p>
	<p>XXX : ±0.02</p>	<p>ASSEMBLY DWG 443336 B</p>	<p>DWG SIZE A</p>	<p>DWG NO. 443346</p>
<p>XXXX : ±0.005</p>	<p>REFERENCE DWG</p>			<p>REV. B</p>

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8	MAGNETIC SENSOR 1.6CM RANGE			015101	1
7	HEX CAP NUT 1/4-20NC			014195	3
6	HEX NUT 5/16-24NF			013407	2
5	SOCKET HEAD CAP SCREW 5/16-24NF x 3/4"	3/4"		017538	2
4	GROMMET 5/16 ID x 9/16 GROOVE DIA x 3/16 GROOVE W			014502	3
3	INSTA TREAD CARRIAGE FIBERGLASS COVER (FLR)			414854	1
2	CRADLE ROLLER ASSEMBLY FLR-20			443593	1
1	INSTA THREAD FLR 20 BACK PLATE ASS'Y			443592	1
#	TITLE	Length	PART	NO	Q

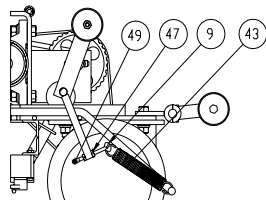
REMARKS

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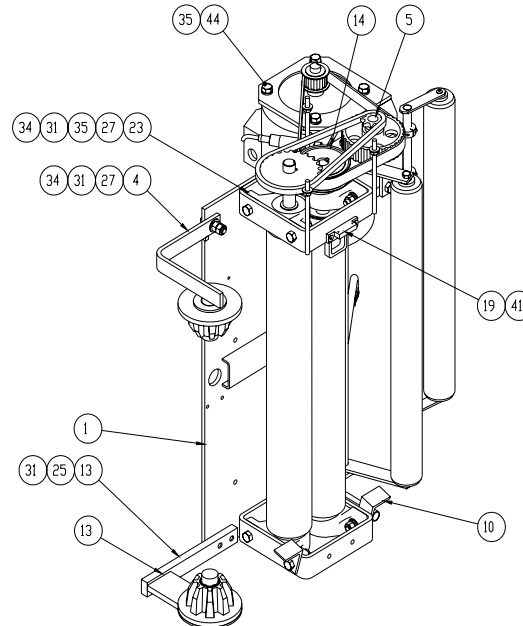
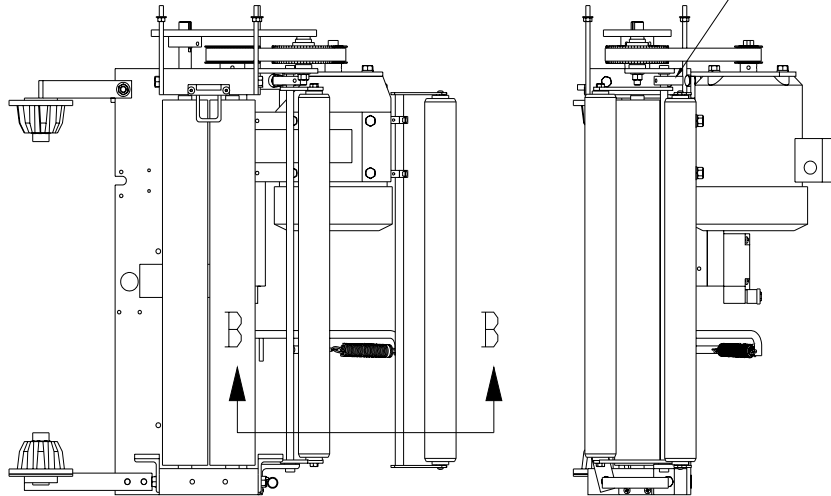
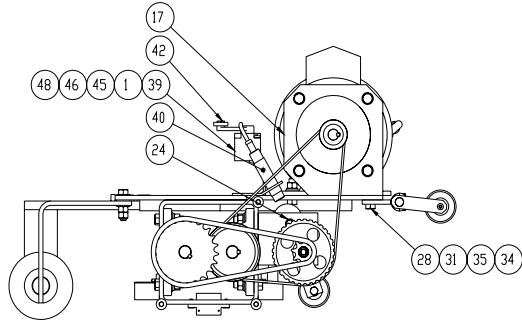
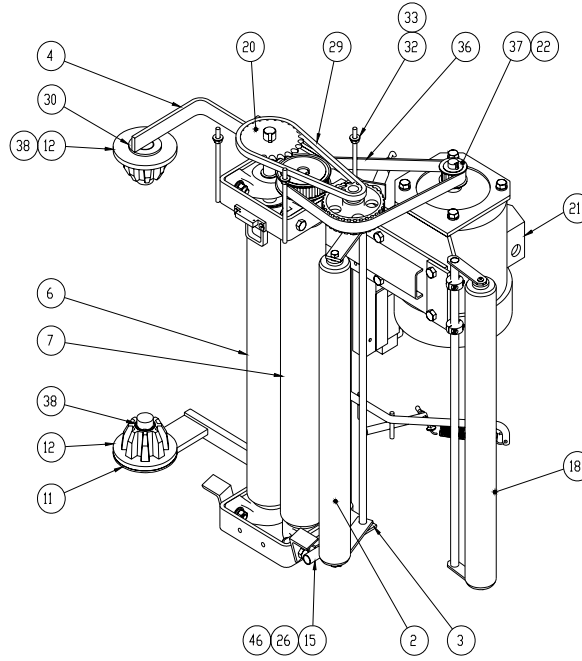
INSTA THREAD - FLR - 20" CARRIAGE

<p>ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9169</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY V. TELEBAK	DRAWN DATE 01/13/2005	WEIGHT (kg) 161.69
	FINISHES MACHINED - H/64 W/REED - H/32 ANGLE - H/32 ZXX - H/82 XXX - H/80S REFERENCE DWG	APPROVED BY	APPROVED DATE	SCALE 1:8
	MACHINE TYPE SPECTRA II	JOB NO.	DWG NO. 443591	REV. B
	ASSEMBLY DWG	DWG SIZE B		

CE DESSIN EST CONFIDENTIEL ET NE DOIT PAS ETRE REPRODUIT OU UTILISE SANS LE CONSENTEMENT DES ENBALLAGES ORION INC.



SECTION B-B

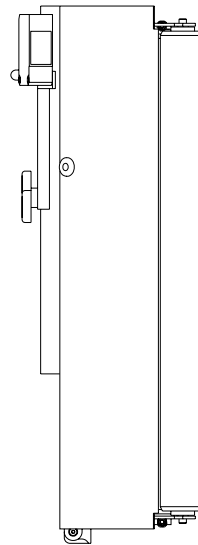
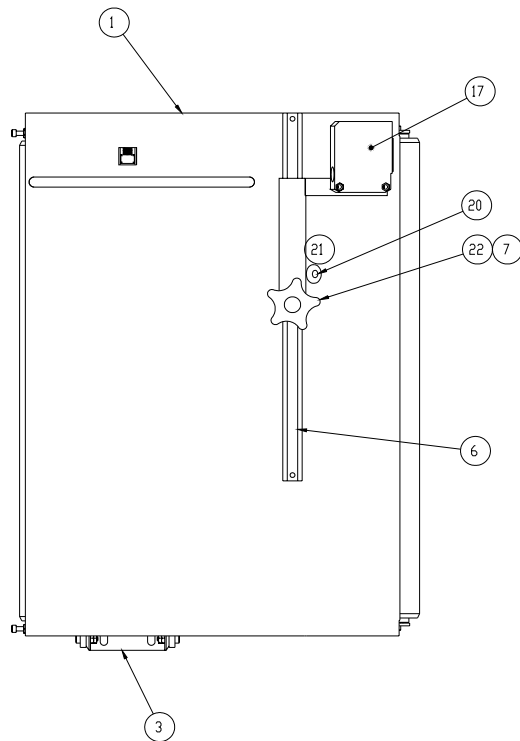
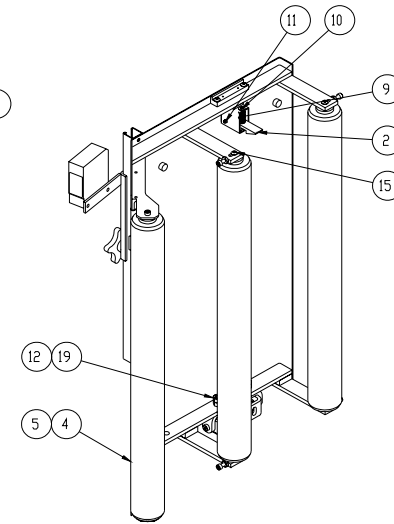
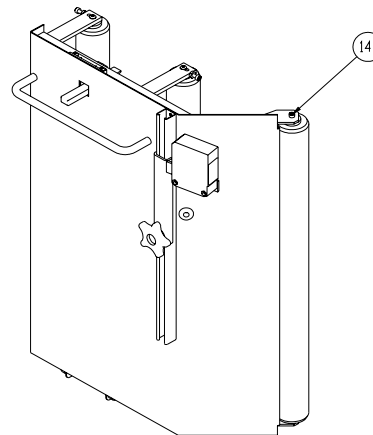
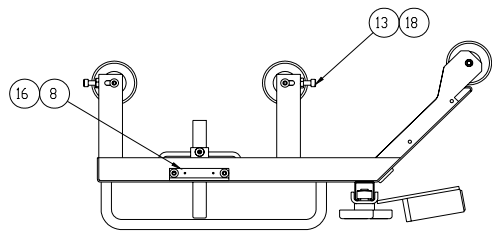


49	RUBBER CAP RB-191			017675	1
48	HEX NUT #10-24NC			012726	2
47	HEX NUT #10-32NF			013451	2
46	LOCK WASHER #10			013444	4
45	PAN PHILIPS HEAD SCREW #10-24NC x 1 3/4"			012754	2
44	HEX BOLT 3/8-16NC x 1"			010293	4
43	YELLOW TENSION SPRING 3/4"OD x 0.080" WIRE			010047	1
42	LEVER ZCKY13			015215	1
41	SOCKET FLAT HEAD SCREW #10-32NF x 1/2"			018533	2
40	PROXIMITY SENSOR IMB1805T			011470	1
39	LIMIT SWITCH ZCKJ404			015118	1
38	SEFT SEATING RETAINING RING 1/2 SIZE R6100-100			013860	2
37	GEARBELT PULLEY 12L075			431477	1
36	GEARBELT 285L075			011151	1
35	LOCK WASHER 3/8"			011390	16
34	HEX NUT 3/8-16NC			011128	14
33	HEX NUT 1/4-20NC			012689	3
32	FLAT WASHER 1/4"			012221	3
31	FLAT WASHER 3/8"			010948	17
30	FLAT WASHER 1"			017327	1
29	CHAIN #40, 44 LINKS + C/L		22 1/2"	013397	1
28	HEX BOLT 3/8-16NC x 1 1/4"			012406	4
27	HEX BOLT 3/8-16NC x 1 1/2"			012476	9
26	PAN PHILIPS HEAD SCREW #10-24NC x 1/2"			012481	2
25	SOCKET FLAT HEAD SCREW 3/8-24NF x 3/4"			013363	2
24	DIL. BR FLANGE BUSHING 7/16 ID x 9/16 OD x 1/2 LG			014247	2
23	PILLOW BLOCK BEARING UCP 204-12, 3/4" BORE			011192	4
22	SQ. KEY STOCK 3/16" x 3/16"		1"	010295	3
21	EL. MOTOR 1/2HP, 208VAC, 1725RPM			015225	1
20	SPROCKET 40B24			435715	1
19	POSITION SWITCH HOLDER - 1		2 1/2"	443073	1
18	ADJUSTED ROLLER ASS'Y			443415	1
17	MOTOR BRACKET			442415	1
16	LIMIT SWITCH BRACKET ASS'Y			434410	1
15	CABLE SUPPORT BRACKET			434409	1
14	GEARBELT PULLEY 26L075			431672	1
13	BOTTOM MANDREL			431737	1
12	BOTTOM SPOOL			432323	2
11	BOTTOM SPOOL WASHER			432322	1
10	CRADLE ROLLER OPENING LOCK		1"	409469	2
9	TENSION SCREW			433629	1
8	PROXIMITY SENSOR CAM		1/2"	413744	1
7	RUBBER ROLLER - 2 (20" FILM)			420917	1
6	RUBBER ROLLER - 1 (20" FILM)			420916	1
5	SPROCKET 40BB / GEARBELT PULLEY 32L075 ASS'Y			434017	1
4	TOP MANDREL (FLR)			434077	1
3	DANCER ROLLER BRACKET (FLR)		1 1/4"	414852	1
2	DANCER ROLLER ASSEMBLY - 20 (FLR)			435540	1
1	CARRIAGE BACK WELDED PLATE FLR-20			443413	1
#			Length	NO	0
REMARKS					
REMARKS					

INSTA THREAD FLR 20 BACK PLATE ASS'Y

<p>ORION PACKAGING INC. 2070 INDUSTRIAL LANE MIRABEL, CANADA, H5S 1P9 TEL: (450) 667-9789</p>	<p>TELEGRAMS UNLESS OTHERWISE SPECIFIED</p> <p>MOQ: 1000 MIN. ORDER: 1000 MAX. ORDER: 1000 REFERENCE: ENG.</p>	<p>DRAWN BY V. TELEBAK</p> <p>APPROVED BY</p> <p>MACHINE TYPE SPECTRA II</p> <p>ASSEMBLY ENG 443591</p>	<p>DRAWN DATE 01/13/2005</p> <p>APPROVED DATE</p> <p>JOB NO</p> <p>ENG SIZE B</p>	<p>WEIGHT (LBS) 99.28</p> <p>SCALE 1:8</p> <p>SHEET 1/1</p> <p>REV C</p>
	<p>INC SIZE 443592</p>		<p>INC NO</p>	<p>REV C</p>
	<p>INC SIZE 443592</p>			
	<p>INC NO 443592</p>			

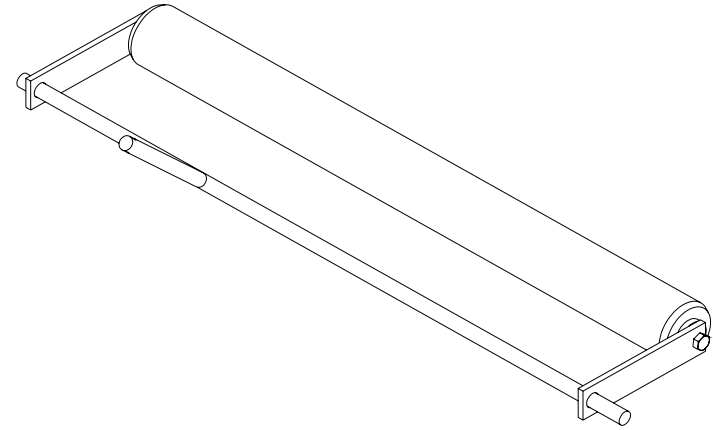
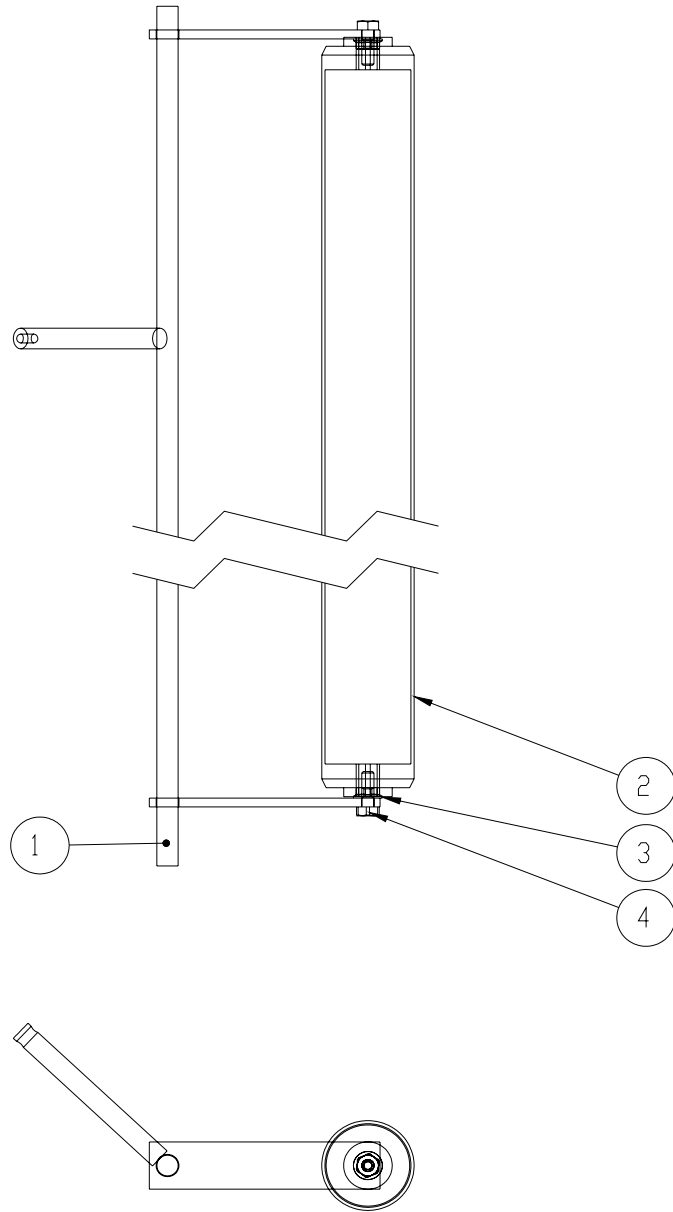
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22	KNOB W/ THREADED BLIND HOLE 3/8-16NC			010092	1
21	FLAT SQUARE NUT 3/8-16NC			017853	1
20	GROMMET 5/16 ID x 9/16 GROOVE DIA x 3/16 GROOVE W			014502	1
19	HEX NUT 5/16-24NF			013407	4
18	HEX NUT #10-32NF			013451	4
17	PHOTOCELL DIFFUSE, WT 260-R 280 (SICK)			017303	1
16	SOCKET BUTTON HEAD CAP SCREW #10-32 x 1/2"			014665	2
15	BUTTON SOCKET CAP SCREW #10-32NF x 5/8"			015133	4
14	SOCKET HEAD CAP SCREW #10-32 x 1/2"			014209	2
13	SOCKET HEAD CAP SCREW #10-32NF x 1"		1"	015020	4
12	SOCKET HEAD CAP SCREW 5/16-24NF x 1"		1"	016410	2
11	SPRING PIN SLOTTED 3/16"Ø x 1"LG			014458	1
10	POP RIVET 3/16" x 1/4" LG			015534	1
9	SPRING #23			013995	1
8	POSITION SWITCH HOLDER - 2		2.500	443088	1
7	PHOTOCELL HIGH HOLDER			434412	1
6	PHOTOCELL HIGH CHANNEL		16"	434411	1
5	IDLE ROLLER SHAFT - 21 5/16" LG		21 5/16"	413249	3
4	CONVEYOR ROLLER "INTERROLL" SERIE 1600		21 1/4"	015153	3
3	ROLLER CRADLE HINGE			430054	1
2	LATCH		4 1/4"	430053	1
1	CRADLE ROLLER SHELL WELDING FLR-20			443424	1
#	TITLE	Length		PART NO	Q

REMARKS									
REMARKS									
CRADLE ROLLER ASSEMBLY FLR-20									
 2270 INDUSTRIEL LEVIA QUEBEC, CANADA, H7S 1P9 TEL: (438) 667-9769		TOLERANCES UNLESS OTHERWISE SPECIFIED FINISH: 15/14 WELD: 15/12 HOLE: 15/12 KEY: 15/12 REFERENCE: 15/12		DRAWN BY V. TELEBAK APPROVED BY M67/17		DRAWN DATE JAN-13-2004 APPROVED DATE STD		WEIGHT (LBS) 20.52 SCALE 1:6 SHEET 1/1	
		434007		443591		B		443593	

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#	TITLE	Length	PART NO	Q
4	HEX BOLT 1/4-20NC x 3/4"		012475	2
3	HEX FLANGE NUT 1/4-20NC		014164	2
2	CONVEYOR ROLLER "INTERROLL" SERIE 1.600	21 1/4"	015153	1
1	DANCER ROLLER CRADLE - 20 (FLR)		435541	1

REMARKS

REMARKS

DANCER ROLLER ASSEMBLY - 20 (FLR)

<p>orion PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769</p>	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWN BY ROGER F.	DRAWN DATE 01/13/2003	WEIGHT (lb) 3.39
	MACHINED : 11/32 VELDED : 11/16	APPROVED BY	APPROVED DATE	SCALE 1:8
	ANGLE : 11/16 X111 : 1/16 X100 : 1/16	MACHINE TYPE SPECTRA	JOB NO.	SHEET 1/1
	REFERENCE DWG	ASSEMBLY DWG 434006	DWG SIZE A	DWG NO 435540

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APPENDIX

Air Compressor Unit (OPTINAL)

SENCO

Fastening Solutions™

PC1010

1 HP (Peak) .5 HP (Running) Electric Oil-Less Compressor



The PC1010 is ultra quiet and lightweight lubeless pump compressor.

Applications:

- Finish and trim
- Hobbies and crafts

Features and Benefits:

- Hand carry-ultra quiet and lightweight, only 20 lbs.
- Direct drive motor/pump for efficient operation
- 1.0 gallon of air capacity
- Comfortable cushioned grip
- Lubeless pump
- CSA approved
- Standard equipment: regulator, pressure gauges, 1/4" universal coupler, air filter
- One year warranty



Unit Specifications:

Engine:	1.0 hp. (Peak) .5 hp. (Running)
Tank Storage:	1 gallon
Lub:	Oil-Less
Power Source:	110V
Running Amps:	4.0
SCFM@100 psi:	0.6
Decibels (dB):	69
Max. Pressure:	125 psi
Pump-up Time:	128 seconds (0-125 psi)
Recovery Time:	35 seconds (95-125 psi)
Weight:	20 lbs. (9.09 kg)
Dimensions:	Length 14" Height 10.3" Width 12.5"

Warranty Information

We, at **SENCO** believe in the tough quality and rugged durability of our tools and accessories, and we are confident that you'll feel the same way. That's why we offer one of the most extensive warranties in the industry.

Product Warranty/Guarantee

SENCO provides two ways for you to register your purchase with us to validate your warranty. You may register your product at SENCO.com using the online [Product Registration](#). Or you may fill out the postage paid warranty registration included with your Operator's manual/ parts charts information, found inside each carton or box. Thank you for taking your time to register your purchase with **SENCO**.

Length of this guarantee is two years [during the applicable period for XtremePro™ Tools] or one year [during the applicable period for most other **SENCO** tools. See pertinent literature for these tools] from date of purchase by the original retail purchaser. During this period, **SENCO** Products, Inc., will repair or replace at **SENCO's** option, any original part or parts for the original retail purchaser. This will be done free of charge, provided the parts are determined defective in materials or workmanship upon examination by a **SENCO** Authorized Warranty Service Center (exception: rubber o-rings and seals, driver blades). Any replacement part provided will carry a warranty for the balance of the period of warranty applicable to the part it replaces.

General Warranty Conditions

This warranty will be honored, only if:

- A) Clean, dry, regulated compressed air has been used, at air pressure not exceeding the maximum indicated on the tool casting;
- B) No evidence of abuse, failure to follow recommended operational maintenance, or modification of the tool is present (read Operator Manual for use and maintenance instructions);
- C) When repair or replacement of parts or tools is necessary, the original retail purchaser returns the complete tool or part, with transportation prepaid, to the nearest **SENCO** Authorized Warranty Service Center, with purchase receipt or other positive proof that the part or tool is within the warranty period.

THIS WARRANTY IS THE ONLY WARRANTY ON THIS TOOL, AND ALL OTHER WARRANTIES, WHETHER ORAL, WRITTEN, EXPRESS, OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY OR PARTICULAR PURPOSE, ARE EXCLUDED. BUYER'S OR USER'S REMEDIES ARE SOLELY AND EXCLUSIVELY AS STATED ABOVE. **SENCO** PRODUCTS, INC. SHALL IN NO EVENT BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL, INDIRECT, OR SPECIAL DAMAGES. IN NO EVENT, WHETHER AS A RESULT OF A BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, SHALL **SENCO's** LIABILITY EXCEED THE PRICE OF THE TOOL WHICH HAS GIVEN RISE TO THE CLAIM OR LIABILITY. ANY LIABILITY CONNECTED WITH THE USE OF THIS TOOL SHALL TERMINATE UPON THE EXPIRATION OF THE WARRANTY PERIOD SPECIFIED ABOVE.

Tool Replacement Due to Natural Disaster

SENCO will also replace any tool destroyed by an Act of God such as flood, earthquake, hurricane or other disaster resulting only from the forces of nature. Such a claim will be honored provided that such original retail purchaser had previously submitted a completed warranty registration card, and then submits proof of ownership and an acceptable statement describing such Act of God, as documented by an insurance carrier, police department, or other official governmental source. To obtain instructions for filing a claim call 1-800-543-4596.