



**MODEL SPECTRA MAX V.3**  
**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

<b>Maximum Load Size</b>	52"W x 52"L x 90"H
<b>Minimum Load Size</b>	30"W x 30"L x 10"H
<b>Weight Capacity</b>	5,000 lbs. Dynamic, 20,000 lbs. Static
<b>Utilities</b>	115/1/60 20 Amp Electrical Service, 3 CFM Compressed Air @ 80 PSI
<b>Turntable &amp; Drive:</b>	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
<b>Control Features:</b>	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
<b>Film Stretch &amp; Delivery:</b>	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
<b>Film Carriage Drive:</b>	Heavy Duty Zero-maintenance industrial belt lift carriage Variable Speed Drive Motor UHMW Precision Carriage Guidance System
<b>Structural Features:</b>	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
<b>Film Tail Treatment:</b>	Pneumatic Film Clamping Device Impulse Wire Film Cutting Pneumatic Load Seeking Film Tail Treatment System Folding Film Clamp For Short Loads Wrapping Capability
<b>Ease of Use and Safety:</b>	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.

## **Machine operation and security**

### **Installation of a roll of 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. Release the lock and pull the handle to open film distributor cradle.
6. Pass the roped tail of the film through opening (as shown on the film quick threading pattern DWG. # 434460 Fig.1).
7. Close the film distributor cradle.
8. When the film distributor 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.

### **Broken film**

Open the cradle, pull a few winds of film, close the cradle and the machine is ready to wrap again.

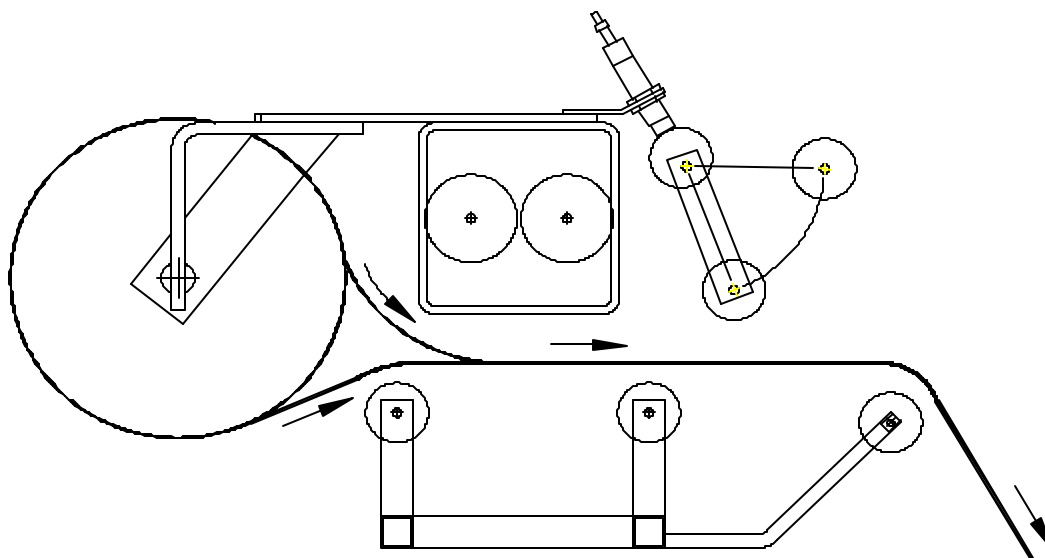


Fig. 1 OPEN CRADLE

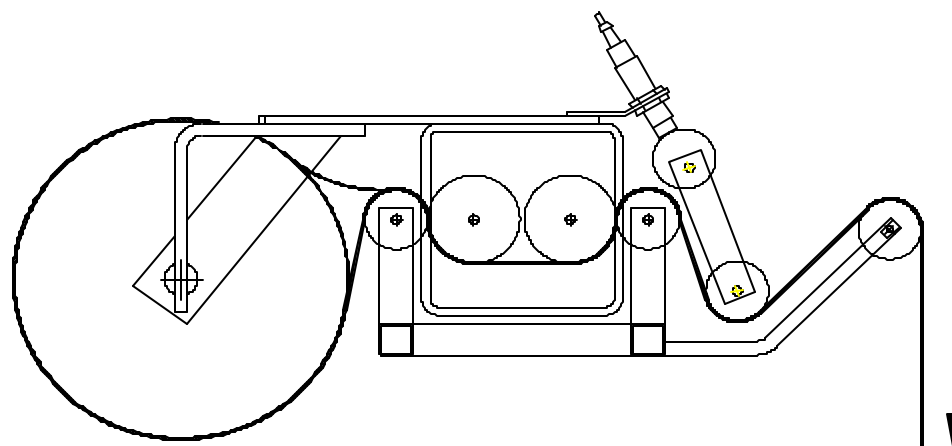


Fig. 2 CLOSED CRADLE

## FILM QUICK THREADING

UPDATED APR-03-2002

DWG # 434460

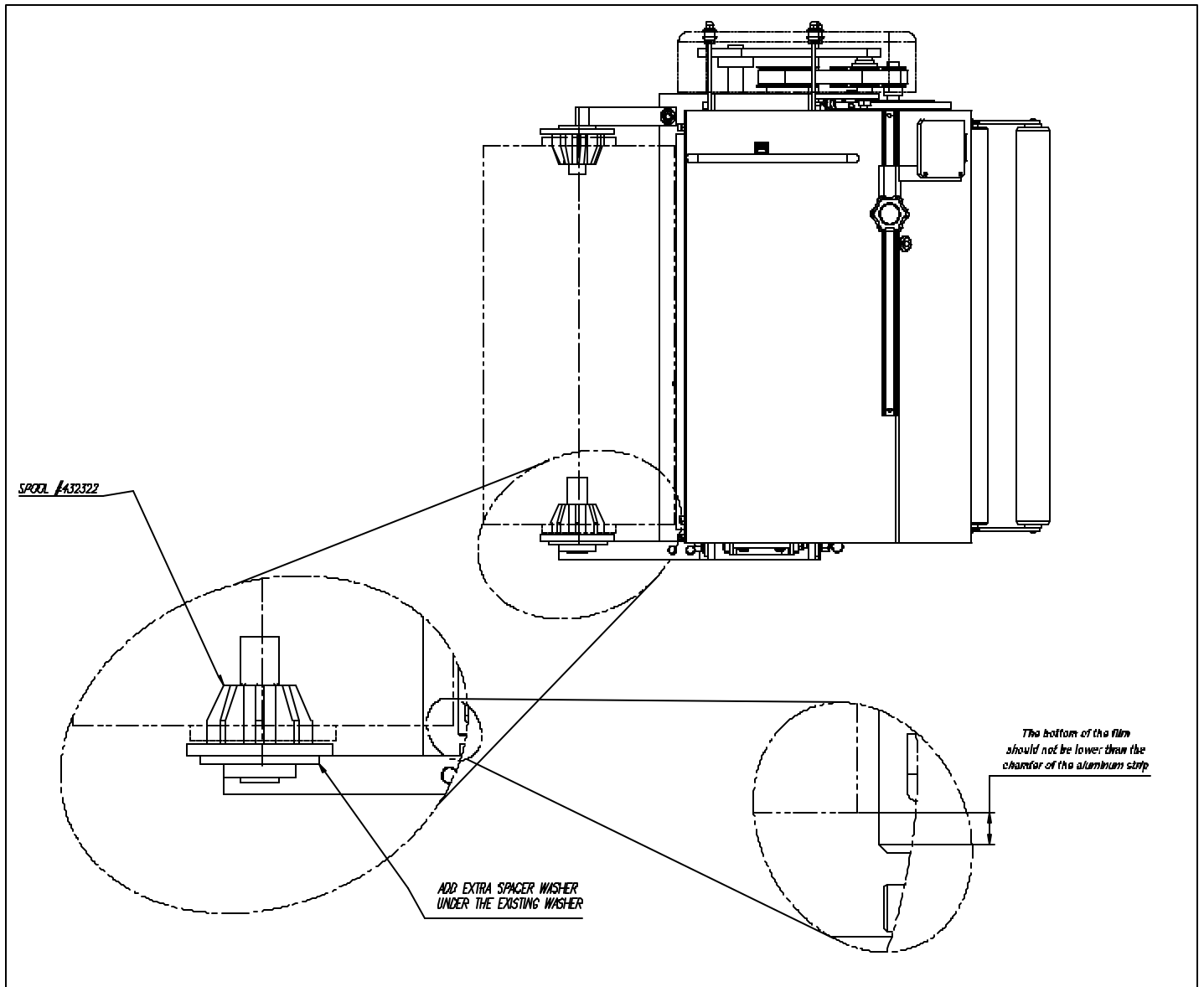


## ADDITIONNAL SPACER WASHER

(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 their 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.



**START**



**STOP**



**SPECTRA™**  
**MAXI**



**FILM TENSION**



**ALARM**



**TOP WRAPS**



1x = PAUSE 2x = RESET



**TURNTABLE JOG**



**OPEN**

**CLOSE**



**CLAMP**



**BOTTOM WRAPS**



**DOWN**

**UP**



**CARRIAGE JOG**



**CARRIAGE UP SPEED**



**! WARNING !**

DANGEROUS OR FATAL ELECTRIC SHOCKS MAY RESULT IF POWER TO THE MACHINE IS NOT DISCONNECTED BEFORE OPENING THE PANEL. DISCONNECT POWER TO THE MACHINE BEFORE OPENING THE PANEL.

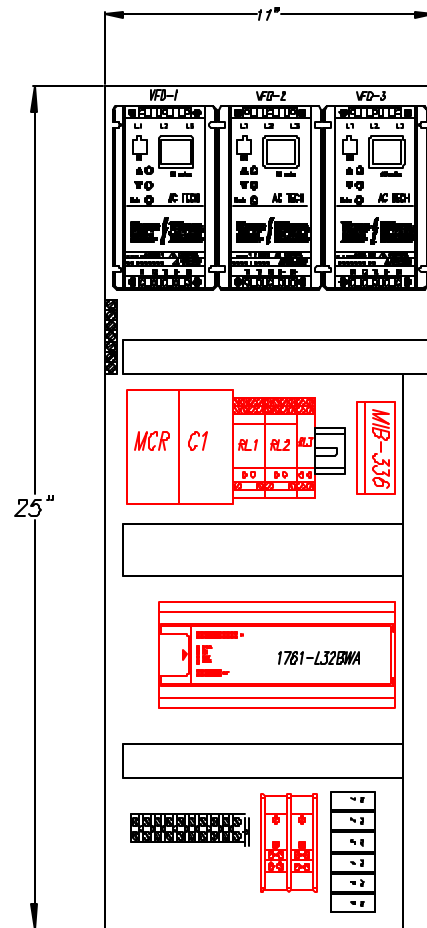
PN 500 114



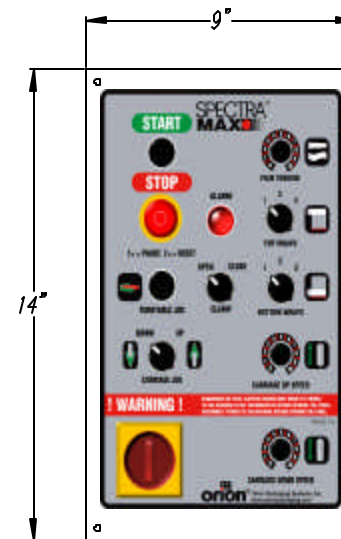
**CARRIAGE DOWN SPEED**




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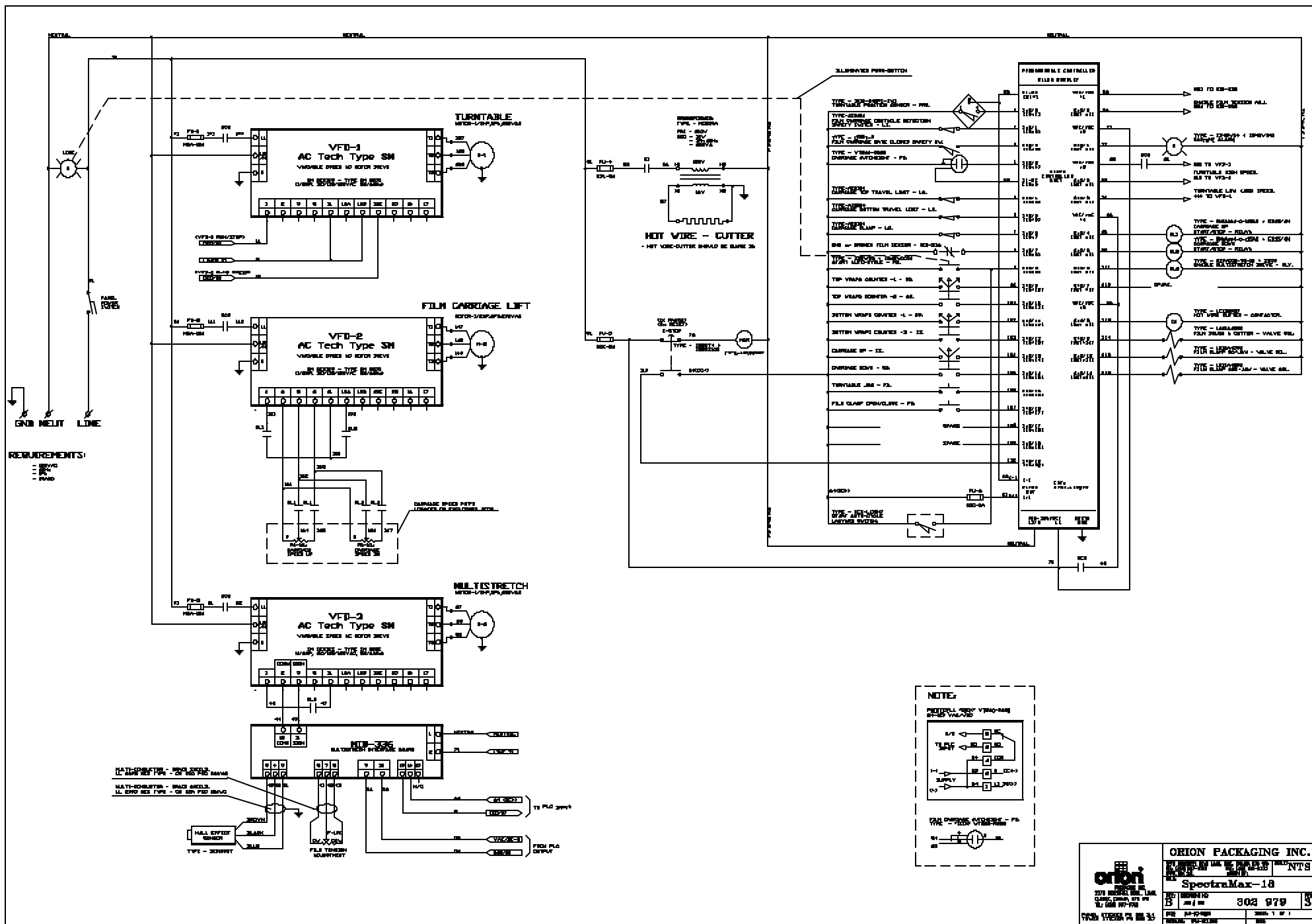


BACK PLATE



FRONT PLATE

	ORION PACKAGING INC.		
	1761-L32BWA 1761-L32BWA 1:2		
	SMAK-18		
	REV. 1	303 979	2
REV. 1		REV. 1	



# MACHINE MAINTENANCE

All general information about machine maintenance is based on normal machine working conditions: indoors, 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 R2
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 chain should be tightened at the chain tensioner, or by moving the reducer on its mounting plate.

**NOTICE:** Chain tension first adjustment must be done after the first two weeks of machine usage.

## PNEUMATIC SYSTEM MAINTENANCE (when applicable)

The air supply system must be checked weekly and must be free from the moisture. In cold environments, it may be necessary to drain the air supply system daily.

## CAM FOLLOWER MAINTENANCE (when applicable)

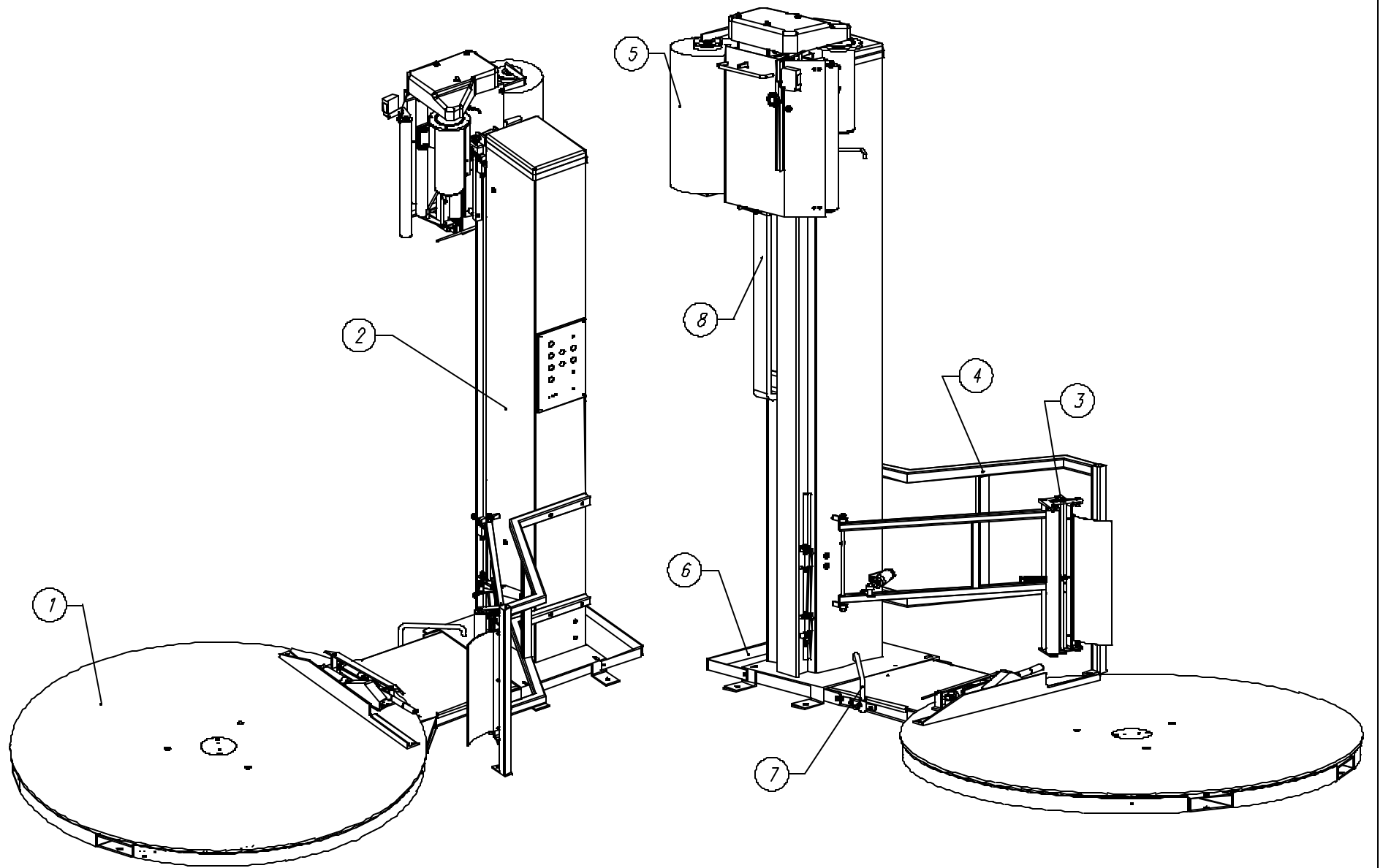
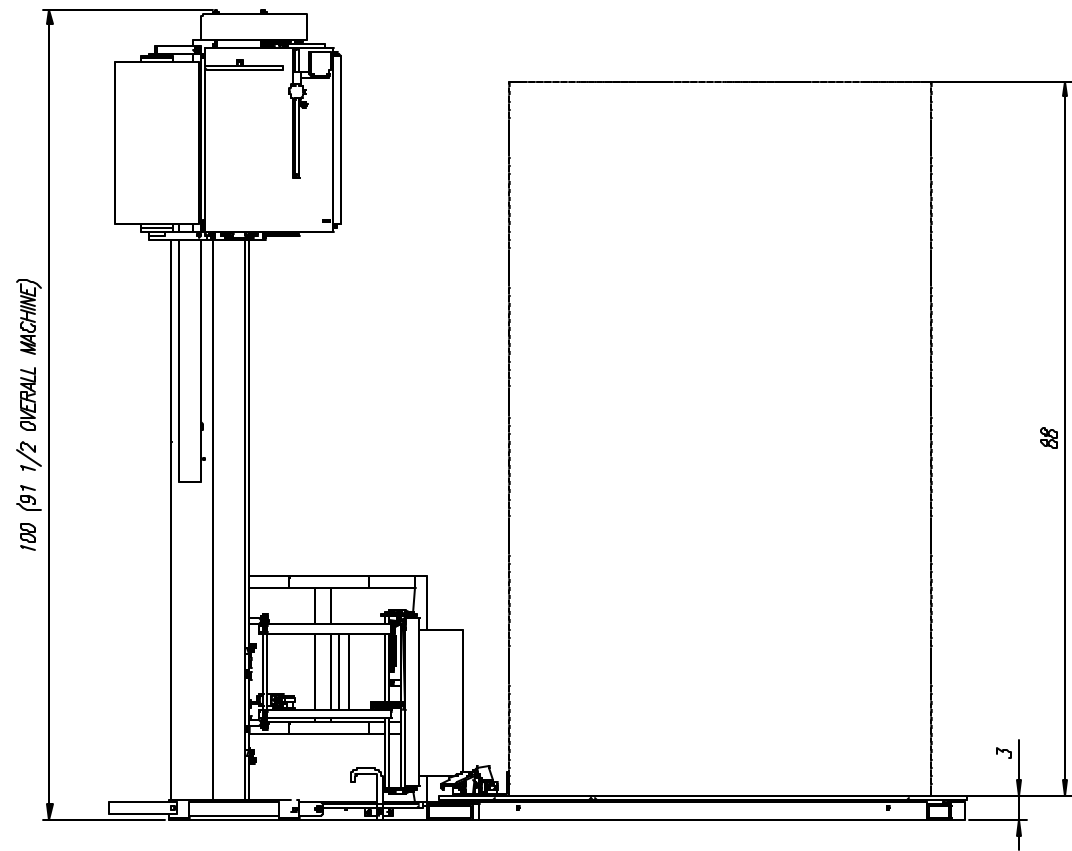
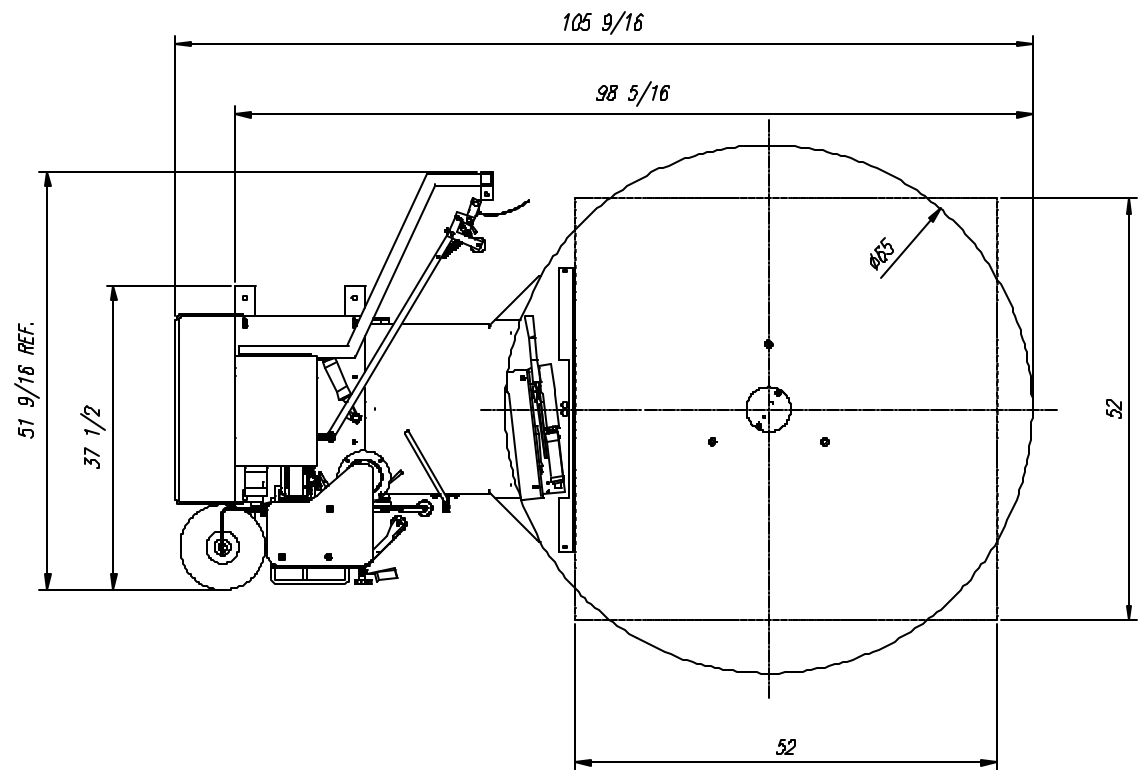
The cam followers have deep grease pockets and do not need frequent relubrication. The portion of the tower on which the cam followers run, should be cleaned and regreased every 300 hours of operation. If the machine operates in a dusty or corrosive environment the tower should be relubricated more often.

# **SEMI-AUTOMATIC STANDARD ASSEMBLY PART LIST**

**Note :**

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

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





8	POWER TRACK K20-4			015897		
7	ROPING BAR ASSEMBLY			443608	1	
6	BACK TOWER STOPPER			436790	1	
5	INSTA-THREAD-FLR-20			443591	1	
4	FILM TAIL TREATMENT GUARD			443360	1	
3	LPA-FILM TAIL TREATMENT			443336	1	
2	LPA-TOWER ASSEMBLY			443644	1	
1	LPA-BASE ASSEMBLY			443642	1	

No.	DESCRIPTION	Length/in	DWG. SIZE	PART No.	Q'ty	WEIGHT
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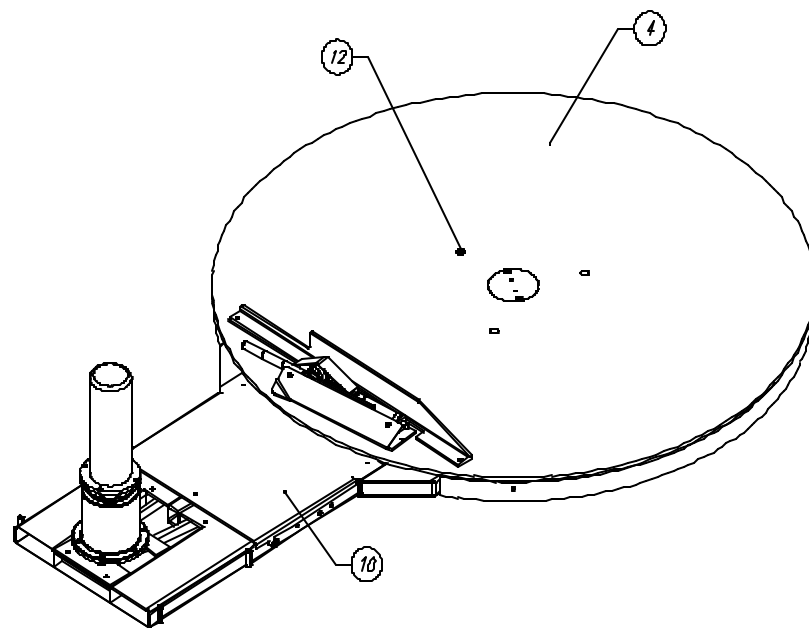
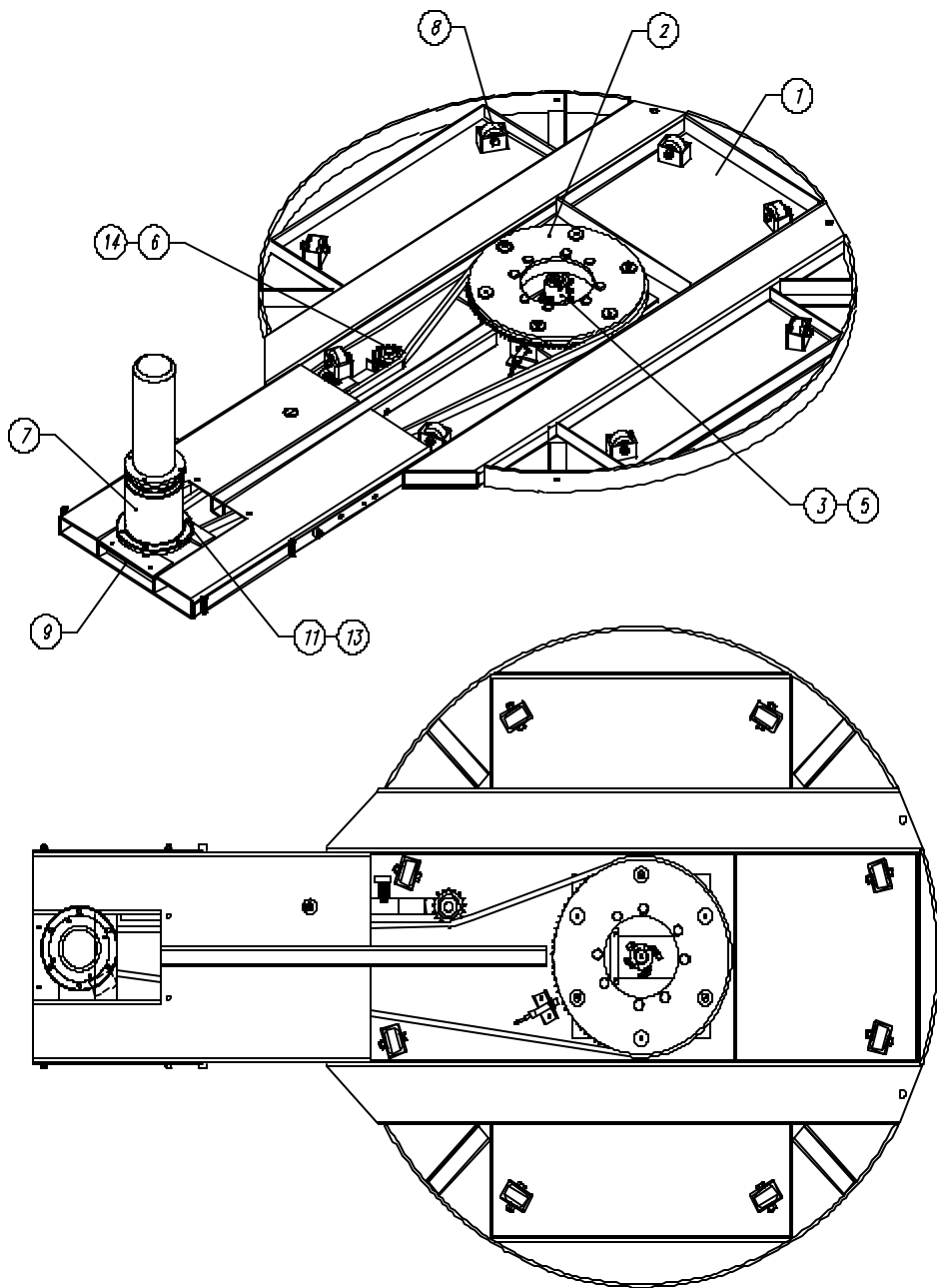
REMARKS:

REMARKS:

"SPECTRA MAX V3" - WRAPPER

 <b>orion</b> PACKAGING INC. 2270 INDUSTRIEL LAMAL QUEBEC, CANADA, H7S 1P8 TEL.: (450) 887-8788	TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN BY: V. TELEBAK		DATE: JAN-17-2005	
	MACHINED: $\pm 1/64$ WELDED: $\pm 1/32$ ANG.: $\pm 1/32$ PER 60°		CHECKED BY: -		TOTAL WEIGHT - DWG. SIZE: <i>B</i>	
			MACHINE TYPE: SPECTRA MAX V3		REFERENCE DWG.: 443309	
			JOB No.: STD		SCALE: 1 : 24	
PROJECTION: 	ASSEMBLY DWG.: -		DWG No.: 443641M		Q-TY 1 REV. A	



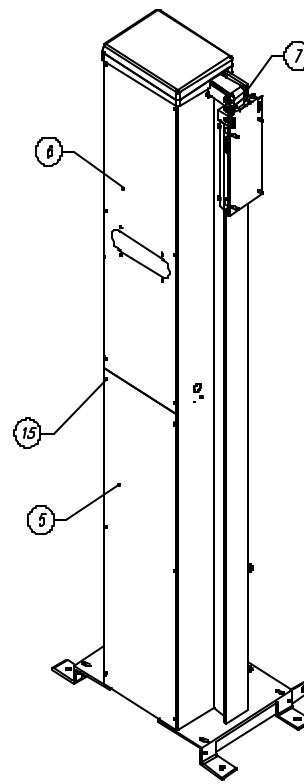
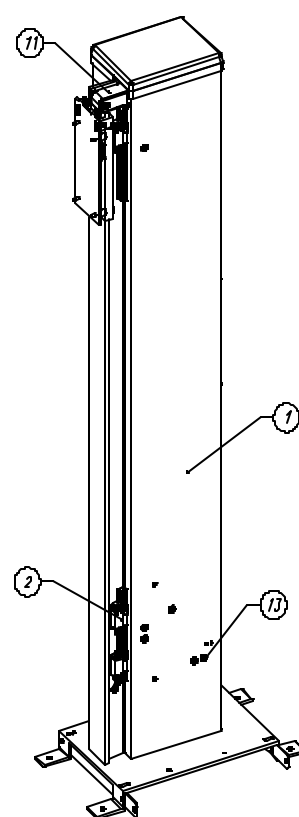
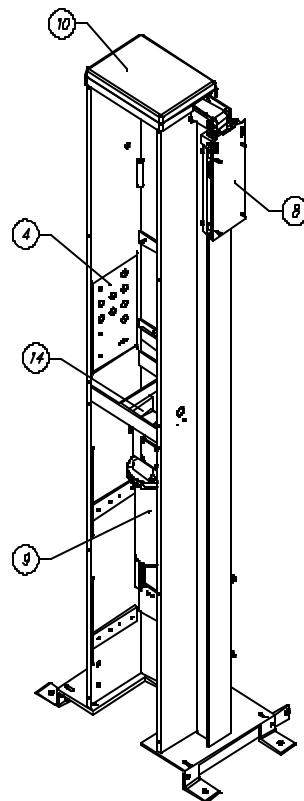
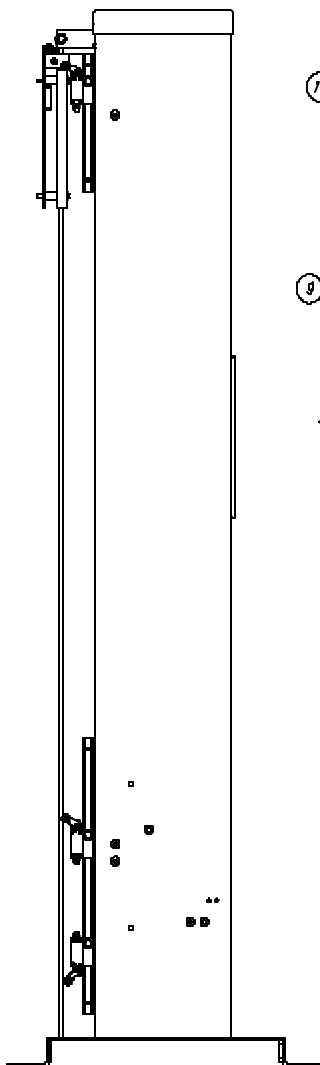
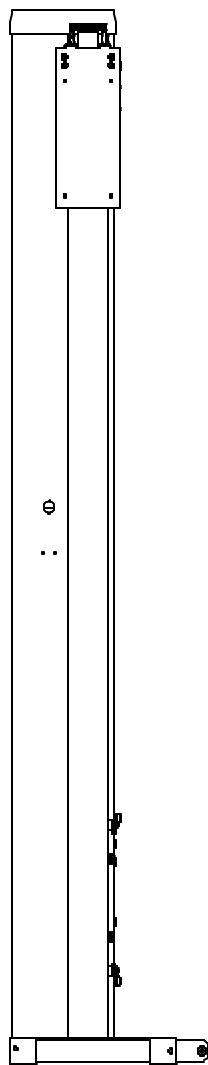
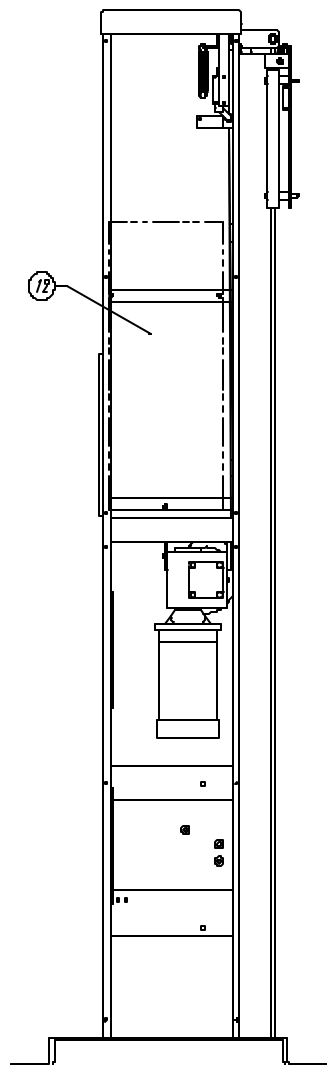
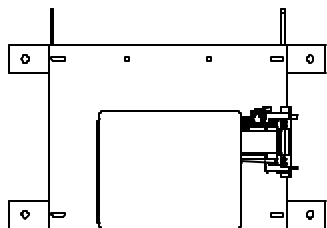


14	SHOULDER SCREW		015122	1	
13	HEX SCREW		014157	4	
12	HEX SOCK FLAT SCREW		013842	3	
11	PLAIN WASHER		010240	4	
10	BASE COVER		013842	1	
9	BASE BACK COVER		430430	1	
8	CRITER ASS'Y		435325	7	
7	TURNABLE DRIVE ASSEMBLY		443056	1	
6	CHAIN TIGHTENER ASSEMBLY		441083	1	
5	AIR TUBES HOLDER		443334	2	
4	LPA-TURNABLE ASSEMBLY		443323	1	
3	1 PASSAGES ROTOMER		443320	1	
2	LPA-T.T. RING-BEARING ASSEMBLY		443312	1	
1	LPA-BASE WELDING		443043	1	

No.	DESCRIPTION	Length/In	DWG. SIZE	PART No.	D'y	WEIGHT
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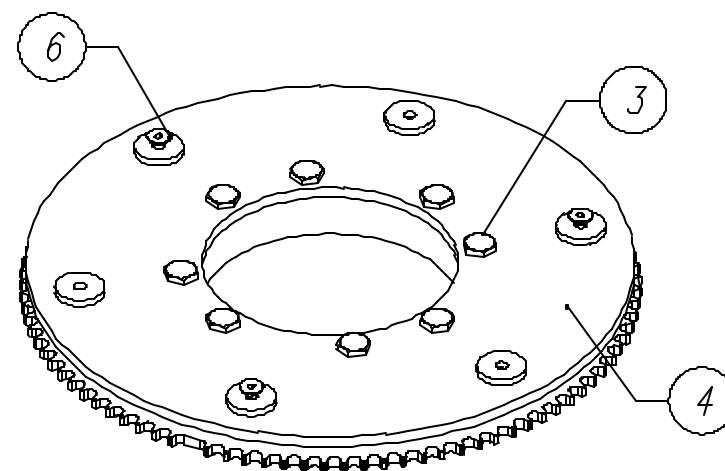
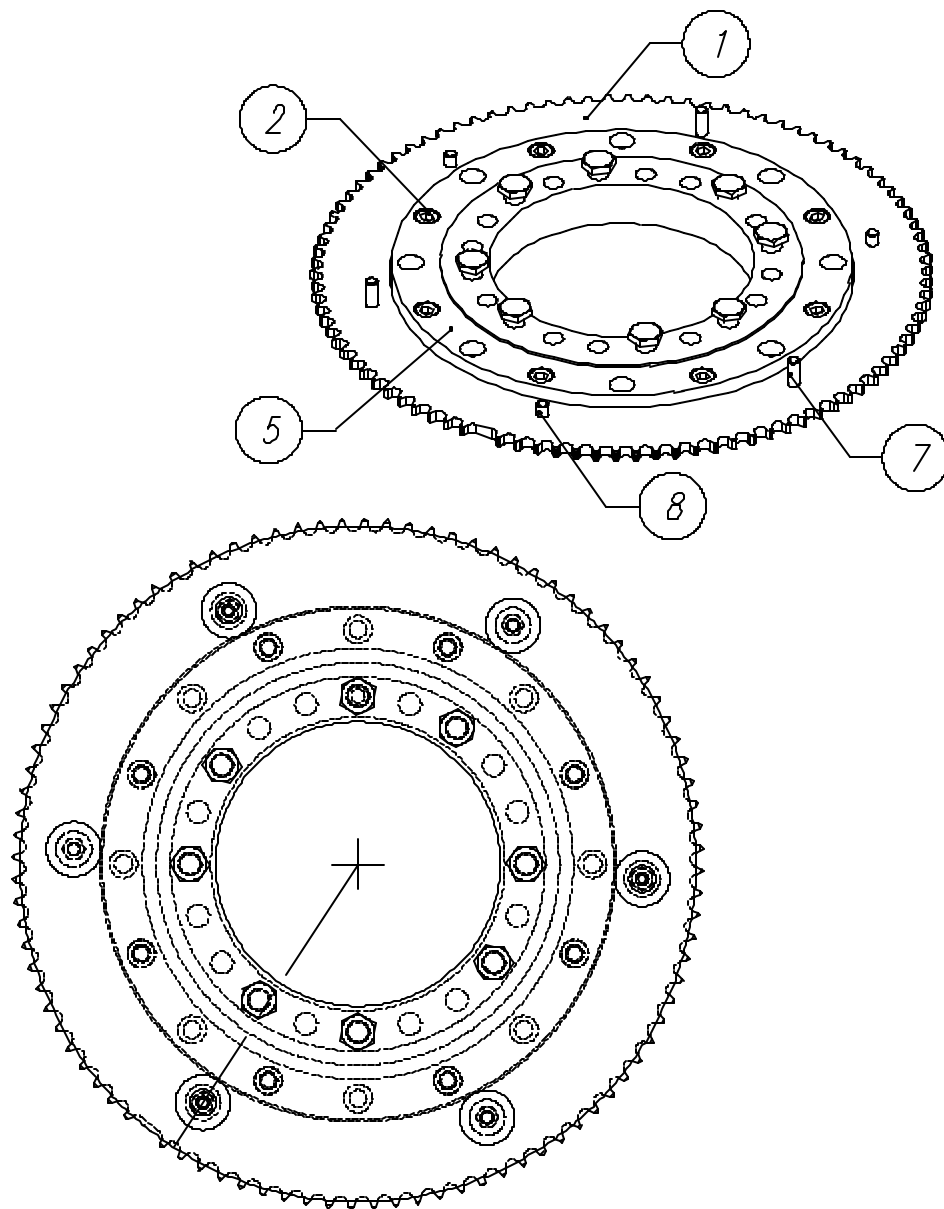
POUR LES  
POUR LES

LPA-BASE ASSEMBLY					
 <b>ORION</b> 2270 ROUTE 100, JAMAICA, N.Y. 11432 TEL: (718) 947-0700	TOLERANCES UNLESS OTHERWISE SPECIFIED MACHINED: $\pm 1/64$ WELDED: $\pm 1/32$ ANGLES: $\pm 1/32$ PER 60°		DRAWN BY: V. TELEBNY CHECKED BY: - MACHINE TYPE: REFERENCE INC. 443310 SPECIFIC MFG. STD. STD		DATE: JAN-18-2005 TOTAL WORK: - TIME: 24 D-Y: 1 REV: A
	PREPARED BY: - ASSEMBLY Dwg: 443041 B		SCALE: 1 : 24 Dwg No: 443042M		
	PROJECT: - PART No: 443041 B		Dwg No: 443042M		
	PROJECT: - PART No: 443041 B		Dwg No: 443042M		



15	PHILLIPS PAN SCREW			012351	16	
14	HEX NUT			012582	4	
13	COROMET			-	6	
12	ELECTRIC INSIDE PANEL PLATE			443828	1	
11	CHARGE BELT (SP-2.1)			436474	1	
10	TOP COVER			436476	1	
9	CHARGE BELT DRIVE			443441	1	
8	CHARGE ATTACHMENT ASSEMBLY			430220	1	
7	BELT WALE ASSEMBLY			436413	1	
6	TOWER BACK ROLL TOP			443826	1	
5	TOWER BACK ROLL DOWN			436412	1	
4	ELECTRIC PANEL			443183	1	
3	TOP LIMIT SWITCH ASSEMBLY			443234	1	
2	BOTTOM LIMIT SWITCHES ASSEMBLY			443231	1	
1	LPA - TOWER WELDING			443845	1	
No. DESCRIPTION Length/In		mm	22	PART No.	Q'ty	WEIGHT
REMARKS:						
LPA TOWER ASSEMBLY						
TOLERANCES		DRAWN BY		DATE		
LIMITS CHANGING SPECIES		K. TELEBNK		JAN-10-2005		
MACHINED: ±1/64		CHECKED BY		DATE		
WELDED: ±1/32		TUNING SPEC		SPECIFICATION		
AVG: ±1/32 PER 40		443227		1 : 12		
PROPERTY		443841 B		STD		
443841 B		STD		443644N		
443644N		STD		A		





8	HEX HEAD SCREW	016112	3	
7	HEX HEAD SCREW	014668	3	
6	FLAT HEAD SCREW	013842	3	
5	RING-BEARING	017801	1	
4	LPA-TT SUPPORTING DISK	443316 A	1	
3	SPECIAL HEX HEAD SCREW	443315 A	8	
2	SPECIAL SOCKET CAP SCREW	443314 A	8	
1	SPROCKET	443313 A	1	

ITEM	DESCRIPTION	FILE, PART NO. OR MATERIAL	QTY Q'TE	WEIGHT POIDS
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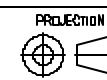
LPA-T.T. RING-BEARING ASSEMBLY

SCALE: 1:6  
ECHELLE: 1:6

TOTAL WEIGHT-LBS:  
POIDS TOTAL-LEBS:



PACKAGING INC.  
2270 INDUSTRIEL, LAVAL  
QUEBEC, CANADA, H7S 1P9  
TEL.: (450) 887-9789



TOL:  $\pm 1/32$  OR  $\pm .010$   
UNLESS OTHERWISE  
SPECIFIED

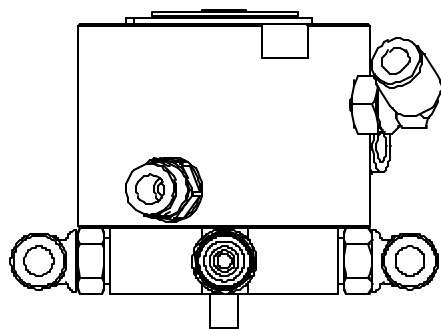
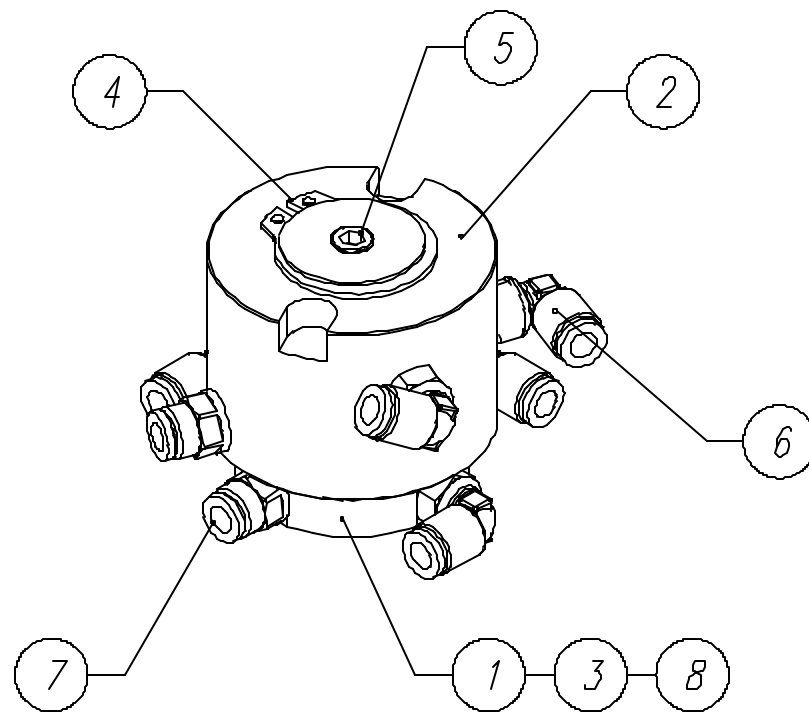
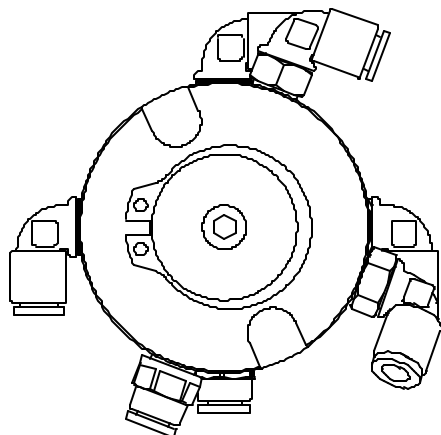
DRAWN BY: ROGER F.  
DESSINE PAR: ROGER F.  
ASSY DWG: 443310 B


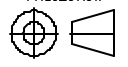
JOB No: 13786

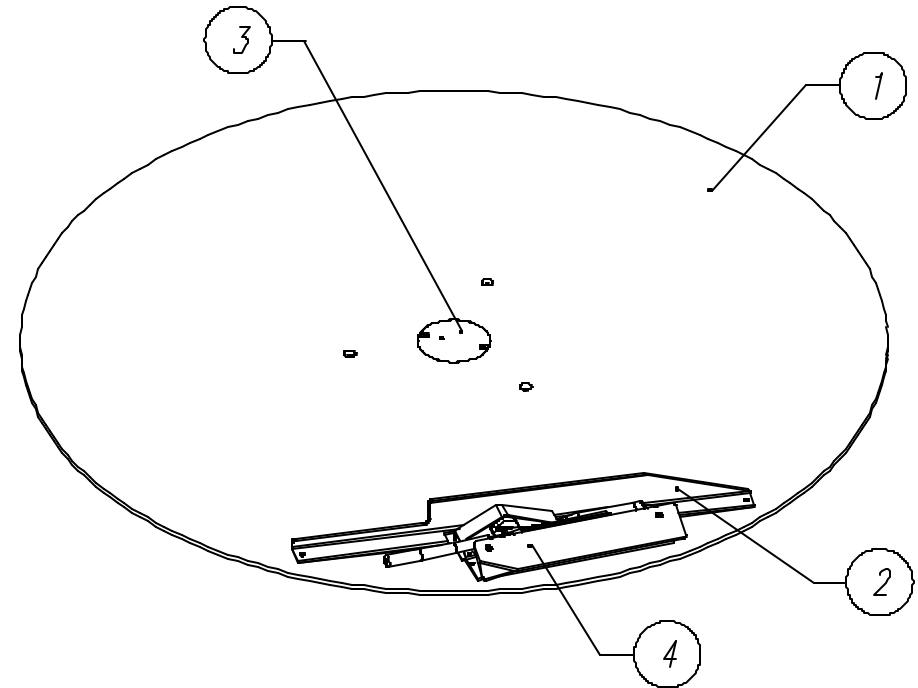
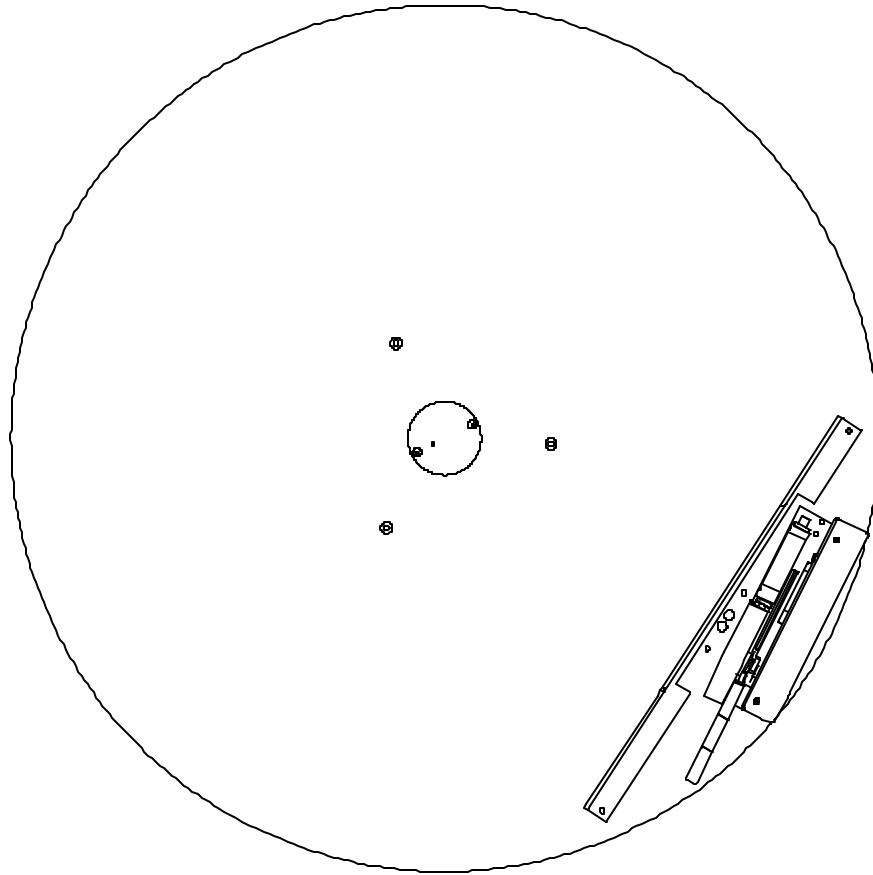
DATE: MAR-04-2004  
MACHINE TYPE: S-MAX


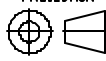
76  
D'TY: 1

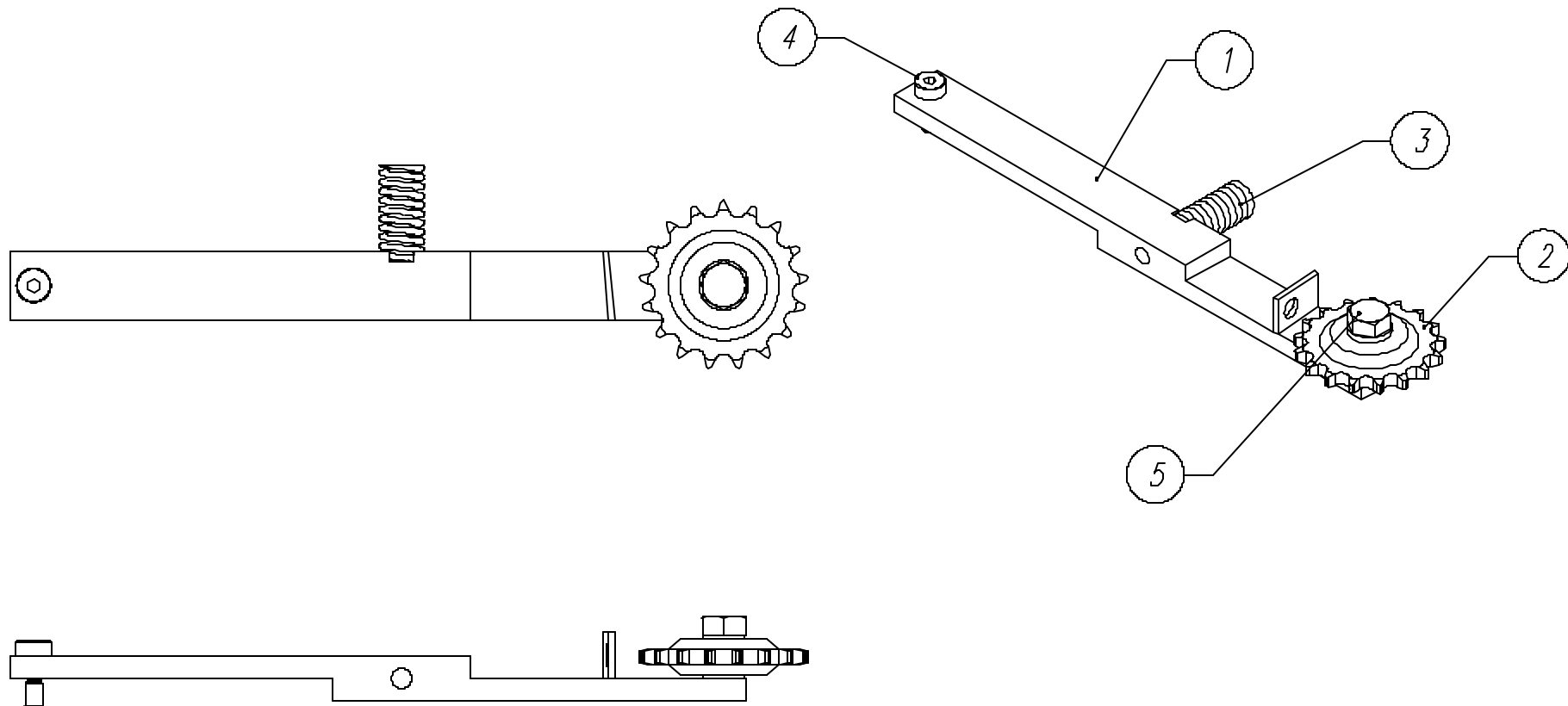
443312M




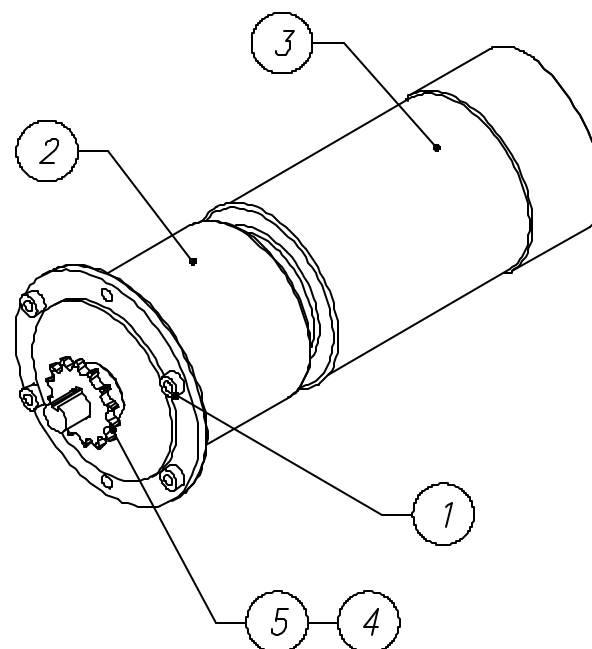
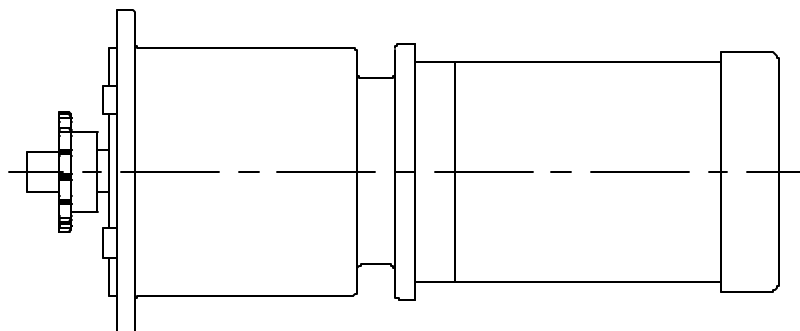
8	SET SCREW	017987	4	
7	MALE CONNECTOR	011986	2	
6	SWIVEL MALE ELBOW	017630	6	
5	SOCK. SCREW	017367	1	
4	EXTERNAL RETAINING RING	013655	1	
3	O-RING	017933	5	
2	4 PASSAGES ROTORSEAL SHELL	443322 A	1	
1	4 PASSAGES ROTORSEAL CORE	443321 B	1	
ITEM	DESCRIPTION	FILE, PART NO. OR MATERIAL	QTY QTE	WEIGHT POIDS
4 PASSAGES ROTORSEAL		A	SCALE: ECHELLE: 1:2	TOTAL WEIGHT-LBS: POIDS TOTAL-LBS:
 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA H7S 1P9 TEL.: (450) 667-9789		PROJECTION 	DRAWN BY: DESSINE PAR: ROGER F. ASSY DWG: 443310 B	DATE: JUL-05-2004 MACHINE TYPE: S-MAX
		TOL: ± 1/32 OR ± .010 UNLESS OTHERWISE SPECIFIED	13578	QTY: QTE: 1
			443320M	



4	CLAMP ASSEMBLY	443330 A	1	
3	TURNABLE PLUG ASSEMBLY	443327 A	1	
2	PALLET POSITIONER	443326 A	1	
1	SPECTRA-MAX TURNABLE DISK	443324 A	1	
ITEM	DESCRIPTION	FILE, PART NO. OR MATERIAL	Q'TY Q'TE	WEIGHT POIDS
LPA-TURNABLE ASSEMBLY		A	SCALE: ECHELLE: 1:16	TOTAL WEIGHT-LBS: POIDS TOTAL-LBS:
 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL: (450) 667-9769		PROJECTION  TOL: $\pm 1/32$ OR $\pm .010$ UNLESS OTHERWISE SPECIFIED	DRAWN BY: DESSINE PAR: ROGER F. ASSY DWG: 443310 B	DATE: MAR-06-2004 MACHINE TYPE: S-MAX
		13786	QTY: Q'TE: 1	443323M



5	SCREW		011366	1	
4	SHOULDER SCREW		015122	1	
3	SPRING		017284	1	
2	IDLE SPROCKET		010008	1	
1	CHAIN TIGHTENER ARM		430035	1	
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT
REMARKS:					
REMARKS:					
CHAIN TIGHTENER ASSEMBLY					
 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (450) 667-9769		DATE:	APR-13-2004	SCALE:	1 : 4
		DRAWN BY:	ROGER F.	MACHINE TYPE:	SP-2.1
		CHECKED BY:		DRAWING SIZE:	A
		ASSEMBLY DWG.:	430002	JOB No.:	—
				DRAWING No.:	441083M



5	KEY		010295	1	
4	SPROCKET		013997	1	
3	ELECTRIC MOTOR		015225	1	
2	VERTICAL REDUCER		016580	1	
1	SPACER		434081	4	

No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT
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REMARKS:

REMARKS:

## TURNTABLE DRIVE ASSEMBLY

  
 PACKAGING INC.  
 2270 INDUSTRIEL, LAVAL  
 QUEBEC, CANADA, H7S 1P9  
 TEL.: (450) 667-8769

ASSEMBLY DWG.:  
 443054 B

DATE: NOV-10-2004

DRAWN BY: V. TELEBAK

CHECKED BY:

JOB No.: 14738

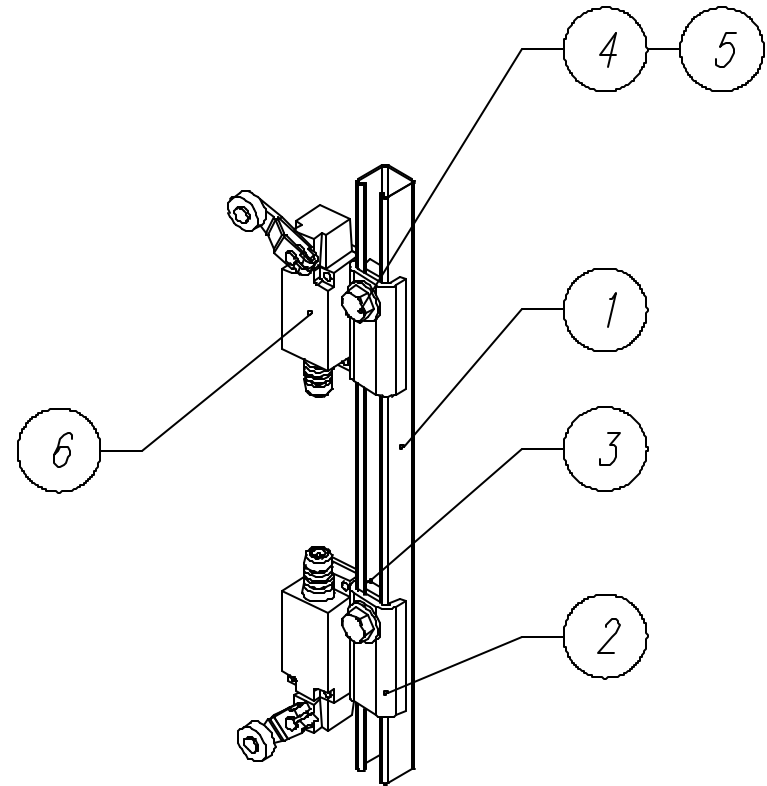
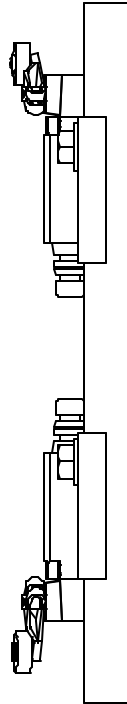
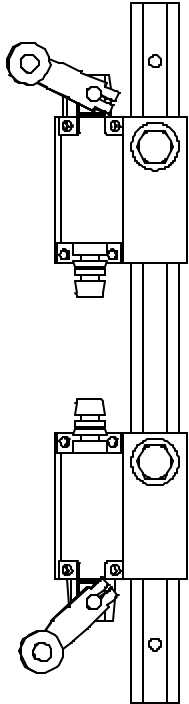
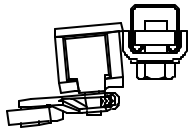
SCALE: 1 : 1

MACHINE TYPE: SPECTRA ELITE

DRAWING SIZE: A

DRAWING No.: 443056M





6	VL LIMIT SWITCH			-	2	
5	LOCK WASHER			011390	2	
4	HEX SCREW			012474	2	
3	NUT FLAT			017853	2	
2	LIMIT SWITCH BRACKET			443233	2	
1	CHANNEL			443232	1	

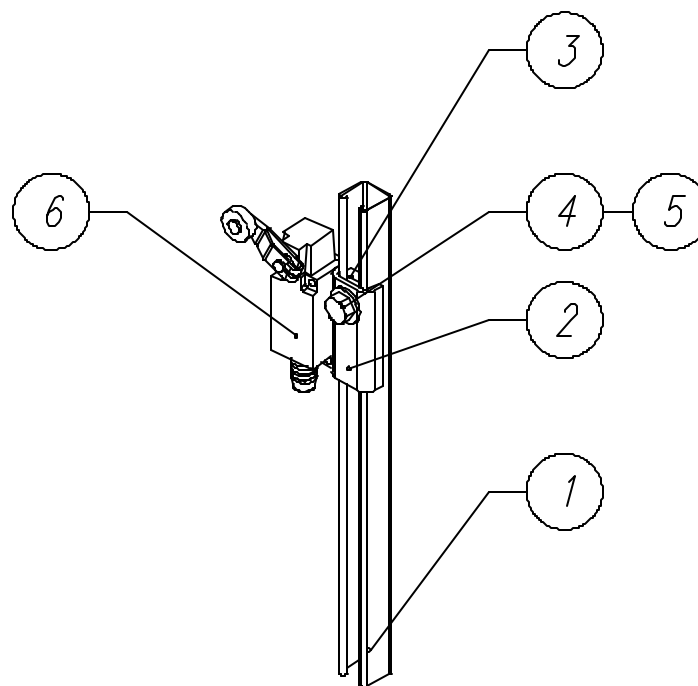
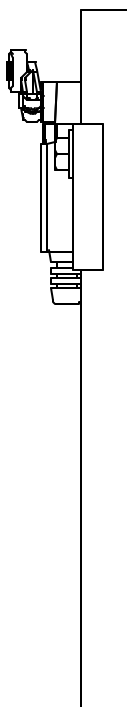
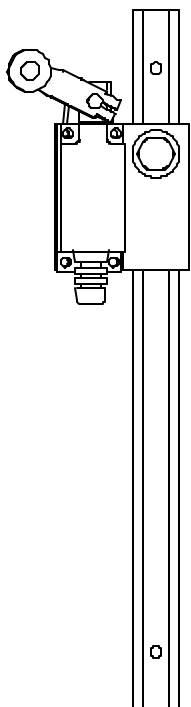
No.	DESCRIPTION	Length/in	DWG. SIZE	PART No.	Q'ty	WEIGHT
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
REMARKS:

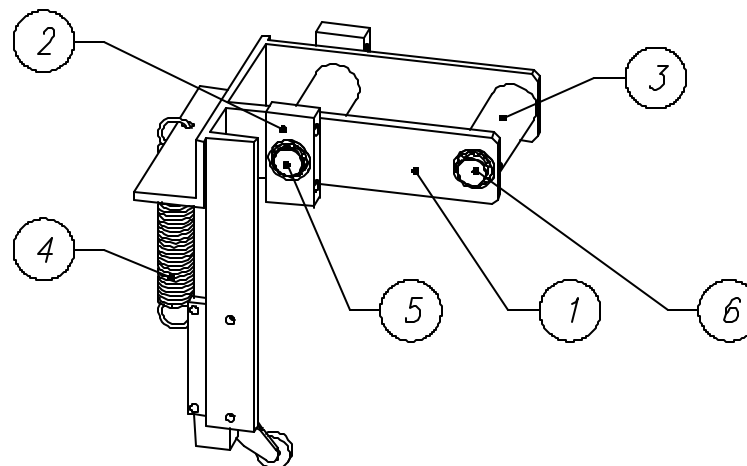
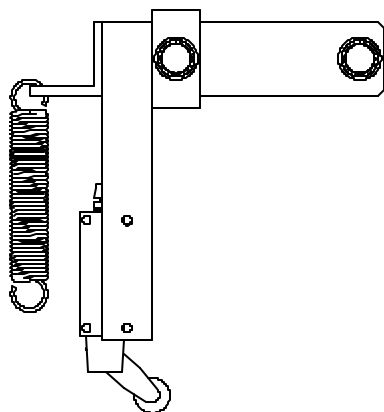
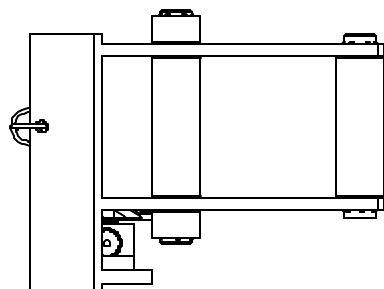
REMARKS:

### BOTTOM LIMIT SWITCHES ASS'Y

<b>orlon</b> PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P8 TEL.: (450) 667-9788	TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN BY: S. KUBICKA		DATE: DEC-08-2004	
	MACHINED: $\pm 1/64$		CHECKED BY: -		TOTAL WEIGHT	DWG. SIZE: A
	WELDED: $\pm 1/32$		MACHINE TYPE: S-MAX		SCALE: 1:4	Q-TY 1
	ANG.: $\pm 1/32$ PER 60°		REFERENCE DWG. LONG #			
PROJECTION:	ASSEMBLY DWG.: 443227 B		JOB No.: 13578		DWG. No.: 443231M	
					REV. B	



6	VL LIMIT SWITCH			-		1	
5	LOCK WASHER			011390		1	
4	HEX SCREW			012474		2	
3	NUT FLAT SQUARE			017853		1	
2	LIMIT SWITCH BRACKET			443233		1	
1	CHANNEL			443232		1	
No.	DESCRIPTION	Length/m	DWG. SIZE	PART No.	Q'ty	WEIGHT	
REMARKS:							
REMARKS:							
TOP LIMIT SWITCH ASS'Y							
 PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA H7S 1P9 TEL: (450) 867-0768		TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN BY: S. KUBICKA		DATE: DEC-03-2004	
		MACHINED: $\pm 1/64$		CHECKED BY: -		TOTAL WEIGHT -	DWG. SIZE: A
		WELDED: $\pm 1/32$		MACHINE TYPE: S-MAX		SCALE: 1 : 4	D-TY: -
		ANG.: $\pm 1/32$ PER 60°		REFERENCE DIM. LONG #			
PROJECTION: 		ASSEMBLY DWG.: 443227 B		JOB No.: 13578		DWG No.: 443234M	REV. A



7	SELF SEATING EXTERNAL RETAINING RING	017603	4	
6	CRS SHAFT	-	1	
5	CRS SHAFT	-	1	
4	EXTENSION SPRING	403118	1	
3	BELT ROLLER	436421	2	
2	BEARING PLATE	430022	2	
1	BELT IDLER ROLLER BRACKET	436420	1	

No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT
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REMARKS:

REMARKS:

### BELT IDLER ROLLER ASSEMBLY

  
 PACKAGING INC.  
 2270 INDUSTRIEL, LAVAL  
 QUEBEC, CANADA, H7S 1P9  
 TEL.: (450) 667-9769

ASSEMBLY DWG.:  
436404

DATE:  
NOV-19-2002

DRAWN BY:  
ROGER F.

CHECKED BY:

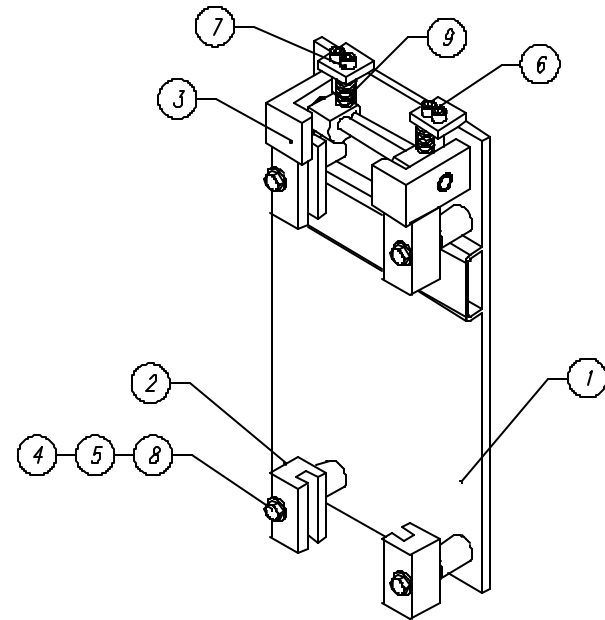
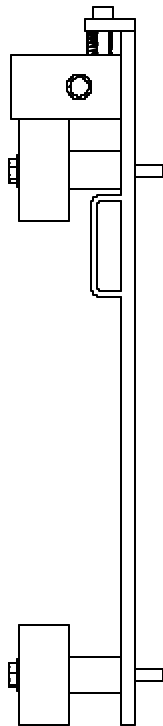
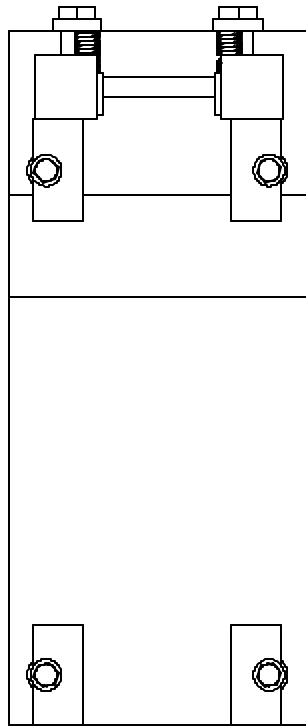
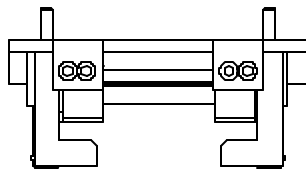
JOB No.:  
12812

SCALE:  
1 : 4

MACHINE TYPE:  
SP-2.1

DRAWING SIZE:  
A

DRAWING No.:  
436413M




9	SPRING	013995	2	
8	FLAT WASHER	012221	4	
7	SOCKET CAP SCREW	017398	2	
6	SOCKET CAP SCREW	014254	2	
5	HEX CAP SREW	018276	4	
4	SPACER	434102	4	
3	SAFETY LOCK	430031	1	
2	SLIDE BEARING	439161	4	
1	CARRIAGE ATTACHMENT BACK PLATE	430028	1	

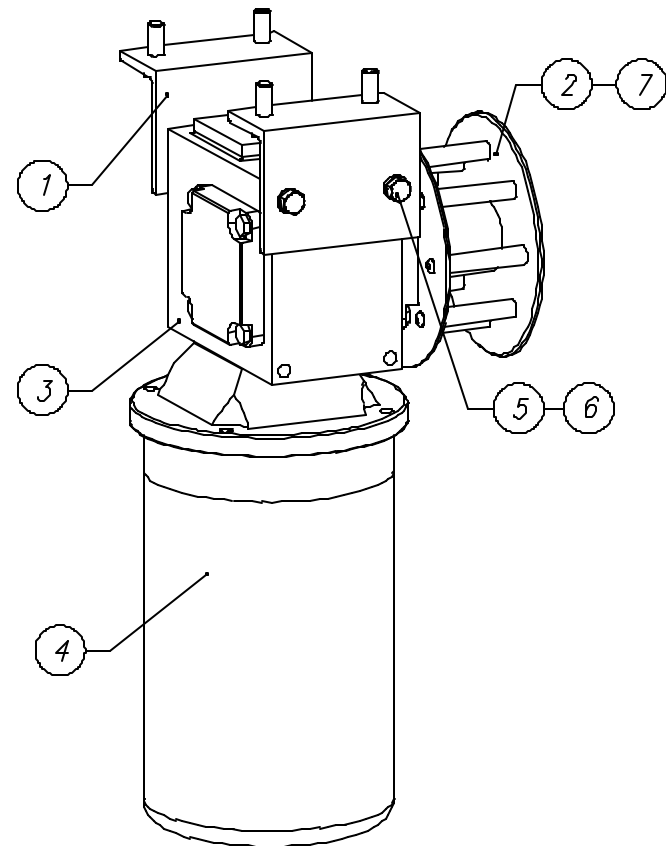
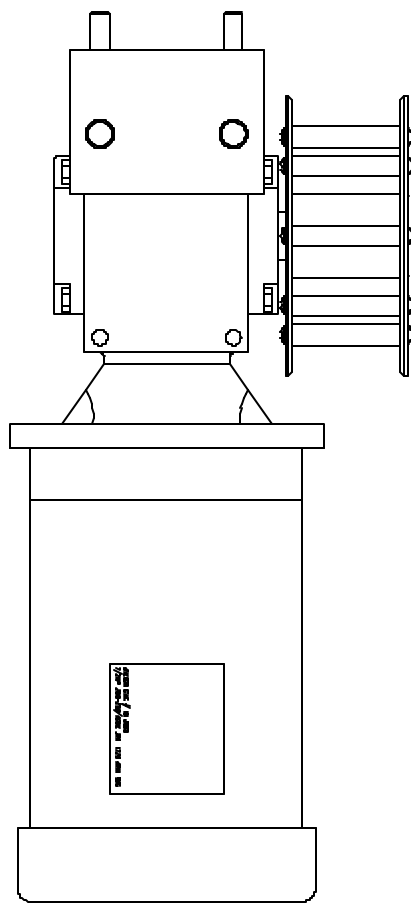
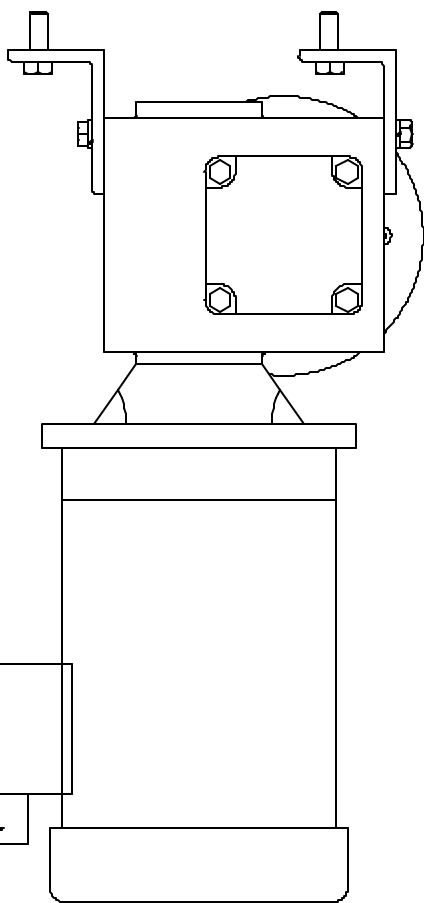
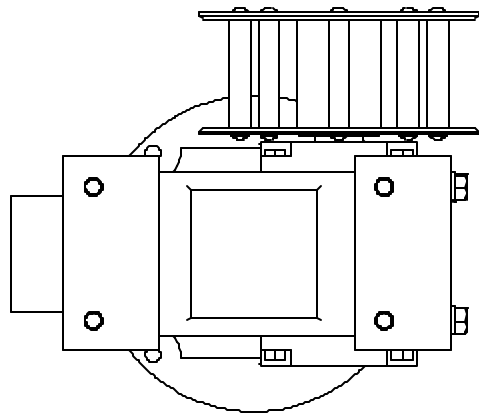
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT
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REMARKS:

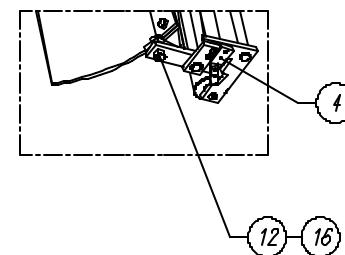
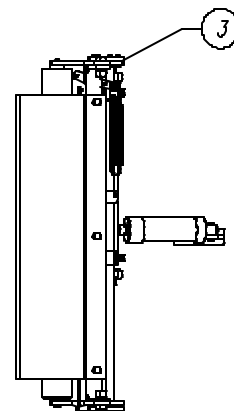
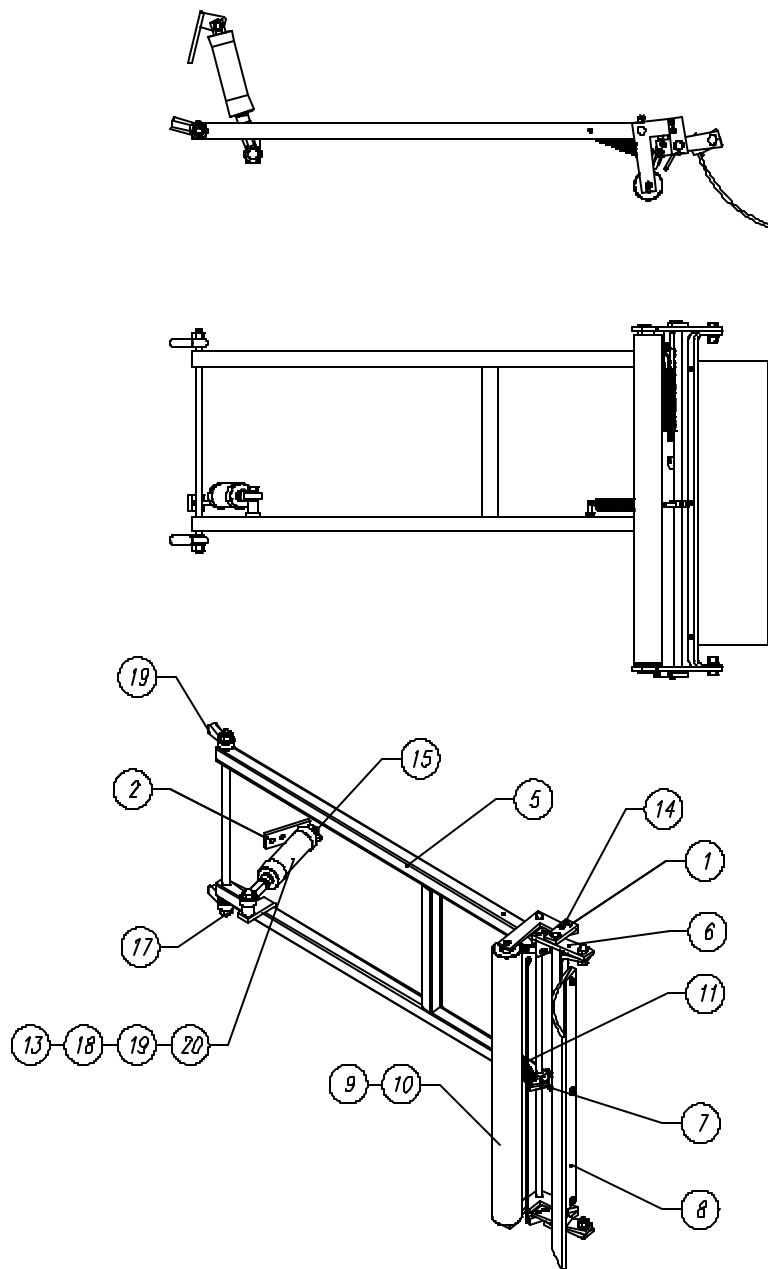
REMARKS:

### CARRIAGE ATTACHMENT ASSEMBLY



 ORION PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P8 TEL.: (450) 667-9789	DATE:	MAR-25-2002	SCALE:	1 : 2.5
	DRAWN BY:	ROGER F.	MACHINE TYPE:	SPECTRA
	CHECKED BY:		DRAWING SIZE:	B
	ASSEMBLY DWG.:	4300011	DRAWING No.:	430020M



10	WASHER SEAL			010850-3	1	
9	NUT LOCK			010850-2	1	
8	PLASTIC CONNECTOR			010850-1	1	
7	KEY			010295	1	
6	LOCK WASHER			012724	4	
5	HEX SCREW			010316	4	
4	ELECTRIC MOTOR			015225	1	
3	REDUCER			010986	1	
2	BELT WHEEL			430024	1	
1	REDUCER BRACKET			436439	2	
No.	DESCRIPTION	Length/in	DWG. SIZE	PART No.	Q'ty	WEIGHT
REMARKS:						
REMARKS:						
CARRIAGE BELT DRIVE						
<b>orion</b> PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (450) 687-9769		TOLERANCES UNLESS OTHERWISE SPECIFIED MACHINED: $\pm 1/64$ WELDED: $\pm 1/32$ ANG.: $\pm 1/32$ PER 60°		DRAWN BY: MARIA MIERNIK CHECKED BY: - MACHINE TYPE: SP, SP-MAX REFERENCE DWG: 436414		DATE: DEC-20-2004 TOTAL WEIGHT: - DWG. SIZE: A SCALE: 1 : 4 Q-TY: -
PROJECTION:		ASSEMBLY DWG:	-	JOB No:	STD	DWG No.: 443441M
				REV:	A	



20	HEX JAM	012954	1	
19	ROD END	014229	3	
18	AIR CYLINDER	016419	1	
17	HEX NUT	010282	2	
16	HEX NUT	012582	2	
15	SELF SEATING RETAINING RING	017622	1	
14	BUTTON SCREW	014313	5	
13	HEX SCREW	015120	3	
12	HEX SCREW	014157	2	
11	EXTENSION SPRING	403118 B	1	
10	ALUMINIUM ROLLER	402789 A	1	
9	IDLE ROLLER SHAFT	413249 A	1	
8	FILM BRUSH ASSEMBLY	443357 A	1	
7	SPRING ATTACHMENT	443358 A	1	
6	FILM CUTTER ASSEMBLY	443348 A	1	
5	FILM TAIL THREATMENT CRADLE	443341 B	1	
4	CUTTER BUMPER	443340 A	1	
3	DUAL HOLES SPACER	443339 A	1	
2	AIR CYLINDER ATTACHMENT	443338 A	1	
1	CUTTER BRACKET	443337 A	2	

ITEM	DESCRIPTION	FILE/PART NO. OR MATERIAL	QTY QTE	WEIGHT POIDS
LPA-FILM TAIL THREATMENT			B	SCALE: ECHELLE: 1:8
			TOTAL WEIGHT-IDS POIDS TOTAL-IDS:	
 PACKAGING INC. 2270 INDUSTRIAL LANE OUELLET, CANADA, H7S 1P9 TEL: (450) 687-0798	PROJECTION 	DRAWN BY: DESSINE PAR: ROGER F. ASSY DNG: 443308 B	DATE: MAR-06-2004	—
	JOB No: 13786		MACHINE TYPE: S-MAX	QTY: QTE: 1
	TOL. ±1/32 OR ±0.010 UNLESS OTHERWISE SPECIFIED		443336M	

ORION  
PACKAGING INC.  
2270 INDUSTRIEL, LAVAL  
QUÉBEC, CANADA H7S 1P9  
TEL: (450) 667-6766

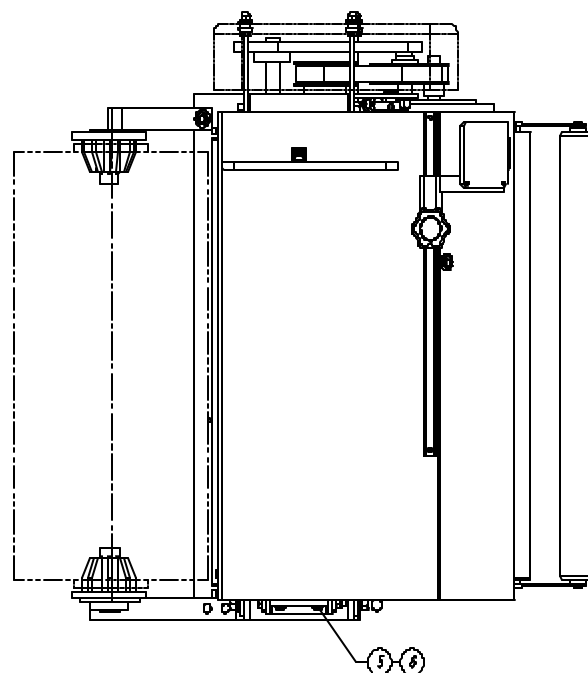
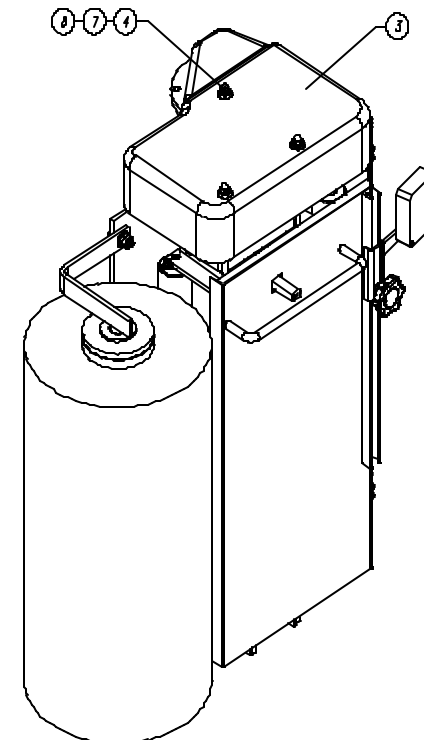
PROJECTION  
TOL. ± 1/32 OR 1.010  
UNLESS OTHERWISE  
SPECIFIED

JOB No:  
13786

DATE:  
MAR-06-2004  
MACHINE TYPE:  
S-MAX

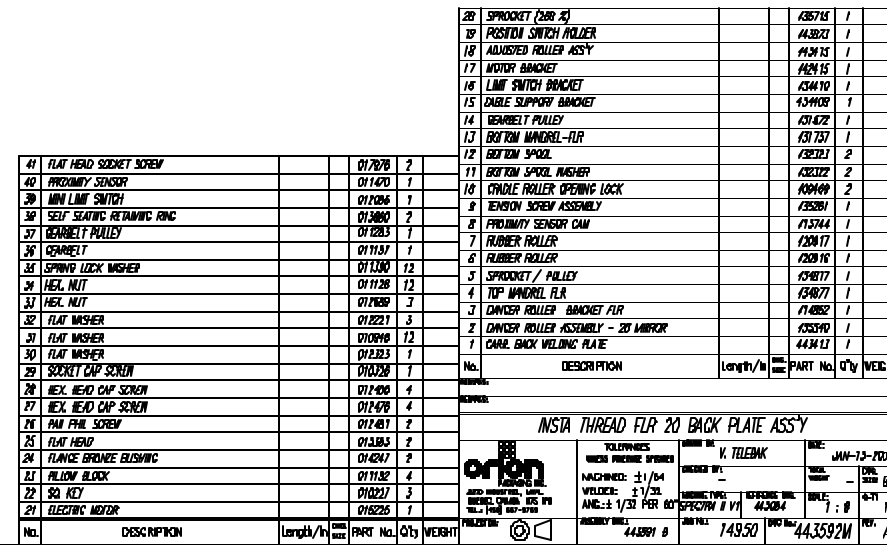
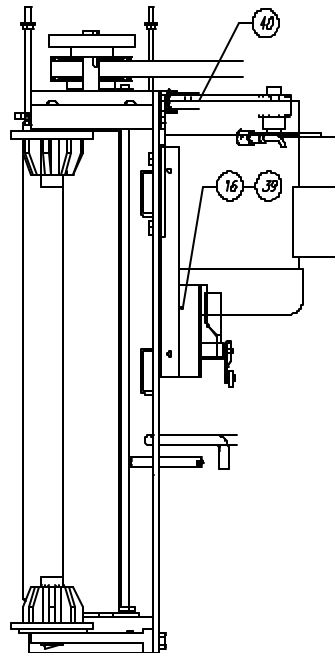
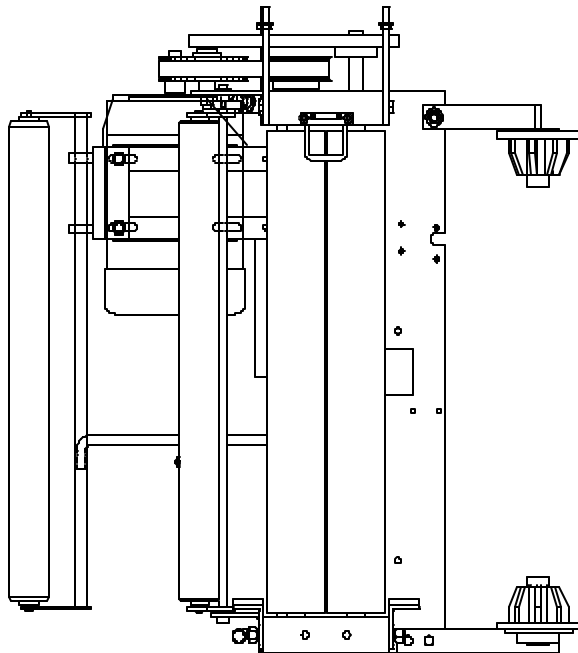
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QTE: 1

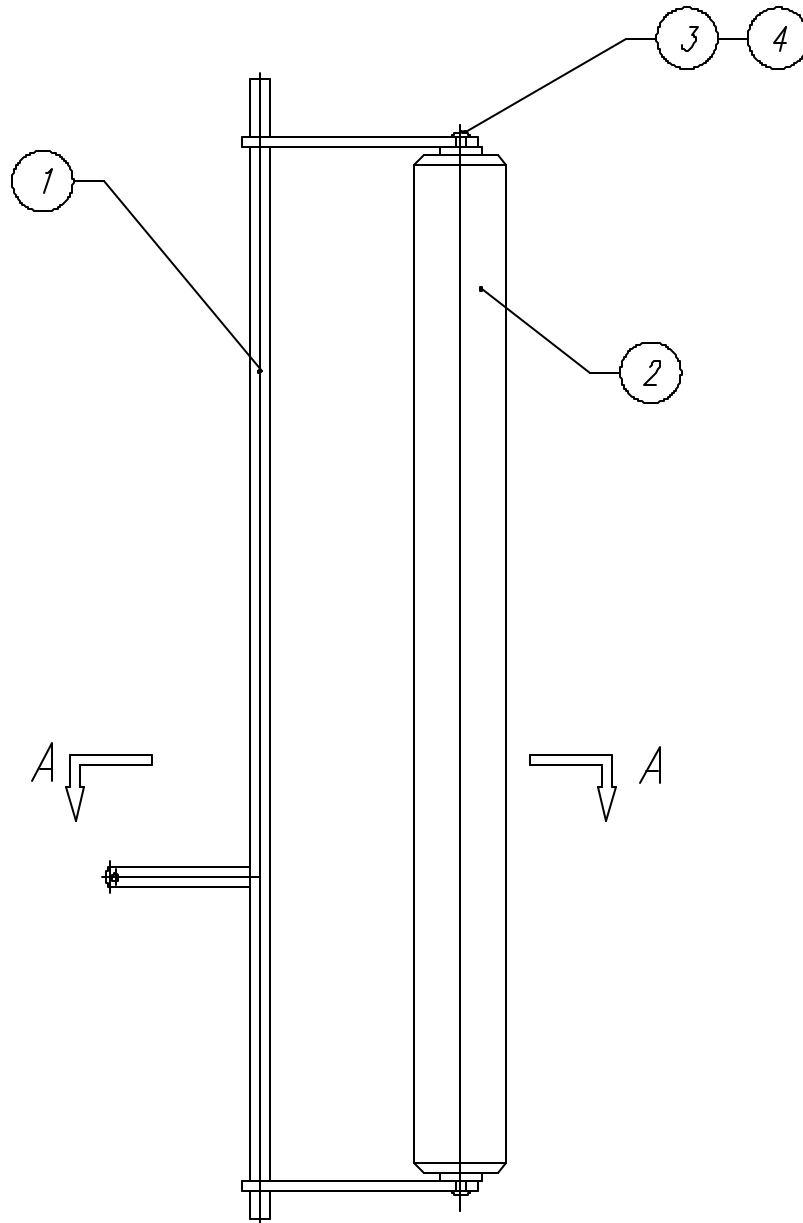




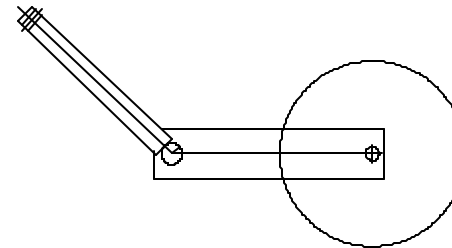
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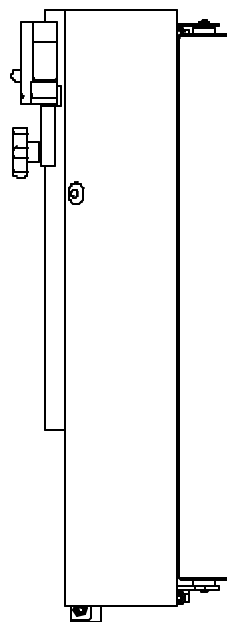
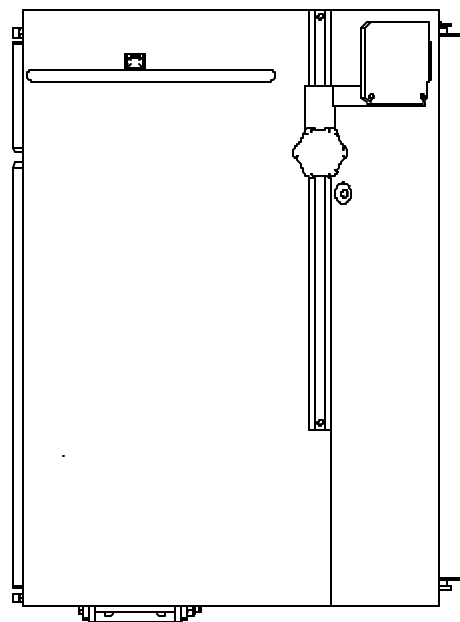
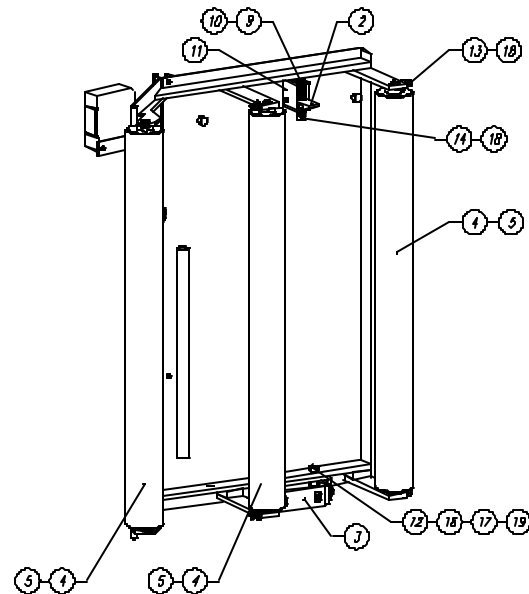
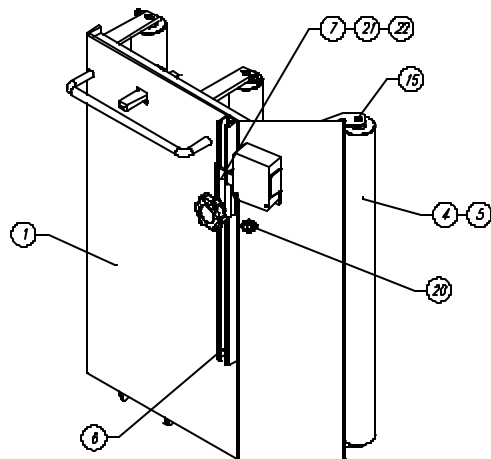
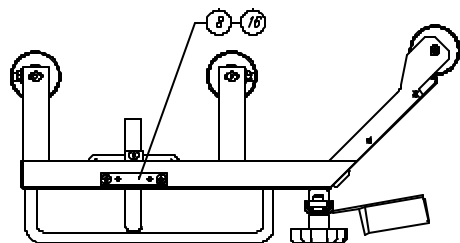




A - A



4	BUTTON HEAD SCREW		014665	2	
3	FLANGE NUT		014164	1	
2	ALUMINIUM ROLLER		402789	1	
1	DANCER ROLLER CRADLE - 20 (FLR)		435541	1	
No.	DESCRIPTION	DWG. SIZE	PART No.	Q'ty	WEIGHT
REMARKS:					
REMARKS:					
DANCER ROLLER ASSEMBLY - 20 (FLR)					
 PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P9 TEL.: (514) 667-9769		DATE:  JAN-13-2003		SCALE:  1 : 4	
		DRAWN BY:  ROGER F.		MACHINE TYPE:  SPECTRA	
		CHECKED BY:		DRAWING SIZE:  A	
		JOB No.:  12237		DRAWING No.:  435540M	
ASSEMBLY DWG.:  434008					



22	BLACK KNOB			010092	1	
21	NUT FLAT SQUARE			017853	1	
20	GROMMET			014502	1	
19	HEX NUT			013407	2	
18	HEX NUT			013451	5	
17	FLAT WASHER			012725	2	
16	BUTTON HEAD SCREW			014665	6	
15	BUTTON HEAD SCREW			014313	6	
14	HEX SOCKET CAP NUT			014208	1	
13	HEX SOCKET CAP NUT			015020	4	
12	HEX HEAD SCREW			017400	2	
11	SPRING PIN			014458	1	
10	POP RIVET			015534	1	
9	SPRING			013995	1	
8	POSITION SWITCH HOLDER			443088	1	
7	PHOTOCELL HIGH HOLDER			434412	2	
6	PHOTOCELL HIGH CHANNEL			434411	1	
5	IDLE ROLLER SHAFT			413249	3	
4	ALUMINIUM ROLLER			402789	3	
3	ROLLER CRADLE HINGE			430054	1	
2	LATCH			430053	1	
1	CRADLE ROLLER SHELL WELD. FLR 20			443424	1	

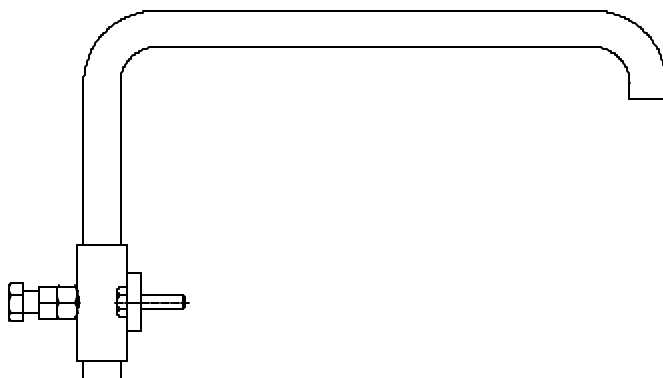
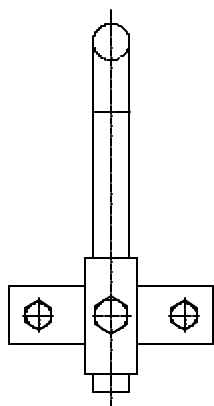
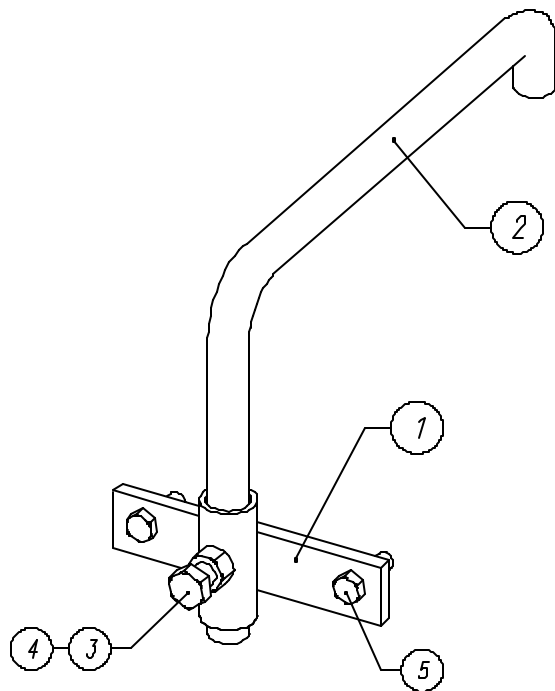
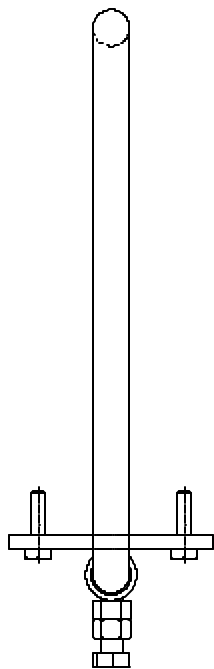
No.	DESCRIPTION	Length/In	INVL SIZE	PART No.	Q'ty	WEIGHT
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REMARKS:

REMARKS:

### CRADLE ROLLER ASSEMBLY FLR-20

<b>orlon</b> PACIFIC INC. 2270 INDUSTRIEL LAVAL QUEBEC, CANADA, H7S 1P0 TEL.: (418) 687-9769	TOLERANCES		DATE	JAN-13-2004	
	MILS OR OTHERWISE SPECIFIED		DRAWN BY	V. TELEBAK	
	MACHINED: $\pm 1/64$		CHECKED BY	-	
	WELDED: $\pm 1/32$		TOTAL WEIGHT	-	
PROJECTION:	ANG.: $\pm 1/32$ PER 60°		WORKING TYPE	SPECTRA II V1	
	ASSEMBLY INGS:		RESPONSIBLE ENG.	434007	
	443591 B		SCALE:	1 : B	
			JOB No.:	14950	
		ENG No.:	443593M		REV. A



5	HEX HEAD SCREW			012475	2	
4	HEX NUT			011128	1	
3	HEX SCREW			016656	1	
2	ROPING BAR			443810	2	
1	ROPING BAR BRACKET			443609	1	

No.	DESCRIPTION	Length/in	DWG. SIZE	PART No.	Q'ty	WEIGHT
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REMARKS:

REMARKS:

### ROPING BAR ASSEMBLY

<b>orion</b> PACKAGING INC. 2270 INDUSTRIEL, LAVAL QUEBEC, CANADA, H7S 1P8 TEL: (438) 687-9708	TOLERANCES UNLESS OTHERWISE SPECIFIED		DRAWN BY: V. TELEBAK	DATE: JAN-14-2005	
	MACHINED: $\pm 1/64$		CHECKED BY: -	TOTAL WEIGHT: -	DWG. SIZE: A
	WELDED: $\pm 1/32$		MACHINE TYPE: SPECTRA II V1	REFERENCE DWG: -	SCALE: 1 : 4
	ANG.: $\pm 1/32$ PER 60°		ASSEMBLY DWG: 443511 B	JOB No.: 14920	DWG No.: 443608M
PROJECTION:				REV: A	

# APPENDIX

## **Multistretch Interface Board Calibration Instructions** **For MIB-336 Interface Board.**

### **Adjustments:**

**Gain:** The Pot controls the system Gain .

This control injects an offset voltage, which adds or subtracts from the voltage reference defined by the External Tension Adjustment (Film Tension Potentiometer); this will allow extremes of adjustment to be set to levels consistent with proper operation. Typically, the Gain will be used to center the operating range in linear portion of its characteristics.

**Note:** This adjustment is normally made at the factory and should not require fields adjustment.

**Zero:** The Pot controls the system loop gain.

This system loop gain may be adjusted if the motor continues to be energized when the dancer arm is unloaded and at rest. With the machine stopped, the potentiometer should be adjusted to ensure that the motor is de-energized in this condition, and so that a light pull on the free end of the film causes the film to feed freely. Counter clockwise (CCW) adjustment of this potentiometer will increase the response time i.e. (soften the motor tension response). Clockwise (CW) adjustment decreases the response time i.e. (sharpen the motor response) plus increases the maximum possible motor speed attainable.

### **Trip:**

The output relay located on MIB-336 Board ( Outputs: Com (14); NO(13); NC(15) ) energized when the voltage between (11) & (12) overshoots the level selected on the potentiometer marked "Trip". It de-energizes when the voltage falls below the normal current by approximately 5% or when power to board breaks.