



**METTLER TOLEDO**

**SOLO<sup>®</sup> MAX**  
**Automatic**  
**Wrapper**  
Quick  
Reference  
Guide

647-2000 Series Machines

**64057919**  
**R03**



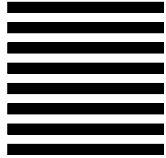


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# Operator Safety

	 <b>CAUTION</b>
	<b>PINCH HAZARD</b> Moving belts can crush and cut. Keep fingers and hands out of belts. Keep hands out of the infeed and discharge areas when machine is powering up or running. Disconnect power before servicing.

	 <b>CAUTION</b>
	<b>BURN HAZARD</b> Hot surface. This machine has an electrically heated sealing belt. Allow to cool before servicing or cleaning.

**Read this manual before operating or servicing this equipment**

**Follow these instructions carefully.**

**Do not allow** untrained personnel to operate, clean, inspect, maintain, service, or tamper with this equipment.

**Always disconnect** this equipment from the power source before cleaning or performing maintenance.

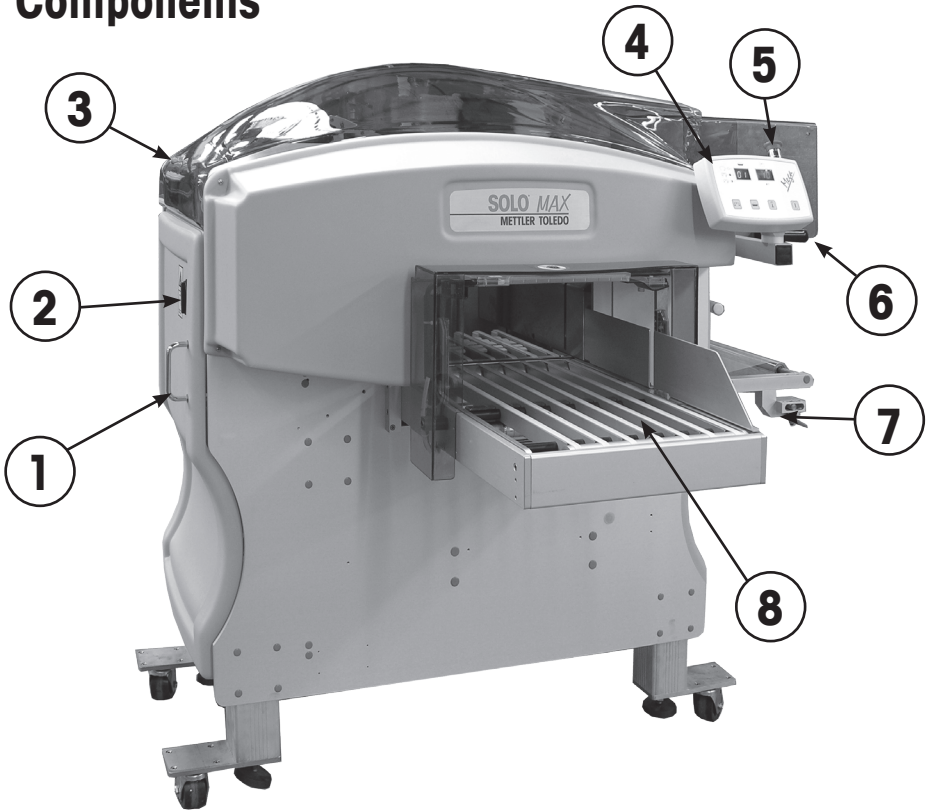
**Observe all posted warning decals** on the machine.

**The machine has an electrically heated sealing belt.** Be careful when working near the belt.

**Keep hands clear of the infeed entrance and the sealing belt exit opening while the machine is operating.**

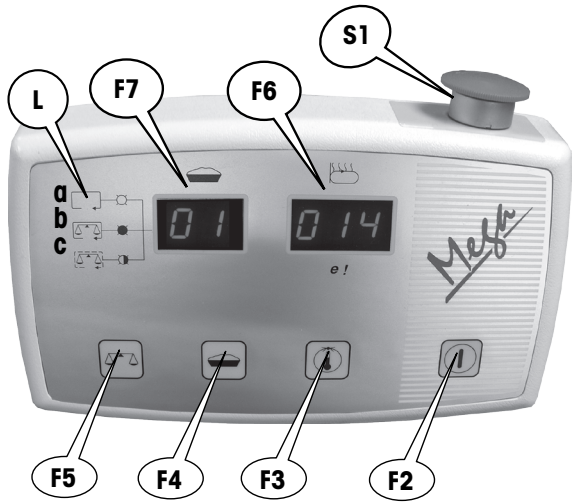
**Only wrap** the indicated tray sizes described in the Tray Reference section of this manual.

# Important Components



1	Side Door
2	Main Power Switch
3	Top Cover
4	Control Panel
5	Emergency Stop Pushbutton
6	Sealing Belt
7	Film Supply
8	Infeed Conveyor



# Control Panel

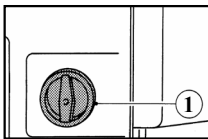


<b>F2</b>	START button (machine start). S1 must be released in order to start the machine. Also used with F3 to set Sealing Belt Temperature.
<b>F3</b>	Used for Film Cutting and Sealing Belt Temperature Setup.
<b>F4</b>	Wrapping Program selection button.
<b>F5</b>	Wrapping mode (not used, Europe only).
<b>F6</b>	This display will show the sealing belt temperature in normal operation or status and error codes in the event of machine malfunction.
<b>F7</b>	Working program display.
<b>L</b>	Wrapping Mode LED.
	a - LED off = Wrapping Only (Normal Mode)
	b - LED on = Wrapping/weighing (not used)
	c - LED flashing= Weighing Only (not used)
<b>S1</b>	Emergency Stop Button - Press to stop machine, pull up and turn to release.








# Startup

	 <b>CAUTION</b>
	<p><b>PINCH HAZARD</b>          Moving belts can crush and cut. Keep fingers and hands out of belts. Keep hands out of the infeed and discharge areas when machine is powering up or running. Do not place objects on the infeed belts. Disconnect power before servicing.</p>



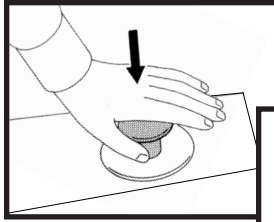
Switch the machine power on by turning the main power switch (1) to ON. Release the Stop Button on the console by rotating and pulling the button up. When the machine is warming up, the display will show machine code 00 and the sealing belt temperature program will blink off and on. When the preset sealing belt temperature has been reached, the display will be on steady (not blinking).

When the Start Button (F2) is pressed, the machine will perform a timing cycle. At the end of the timing cycle, the machine is ready for use.

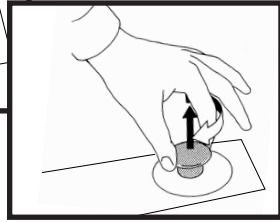
OPERATION	DISPLAY	DESCRIPTION
Machine ready to operate	F7 F6	F6 shows the sealing belt temperature (not blinking). F7 shows the current program, 01, 03, 05, etc.
Change sealing belt temperature  	F6	To modify the code, press and hold both buttons F3 and F2 simultaneously until F6 shows the required code.
Select Wrapping Program 	F7	Press button F4 until the display F7 shows the required wrapping program.
Machine in emergency stop 	F6	Display F6 will show the 3-digit error code. To start again after taking care of what caused the stop code, press the START button F2.
Film cut 		Press and hold button F3 for more than 5 seconds.

# Stopping the Machine

The SOLO® MAX is equipped with an Emergency Stop Button located on top of the Control Panel. To stop the machine, press the button down. To release the machine from emergency stop, turn the button and pull up. You can then press the Start button on the Control Panel to restart the machine.



**Stop**



**Release**

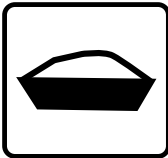
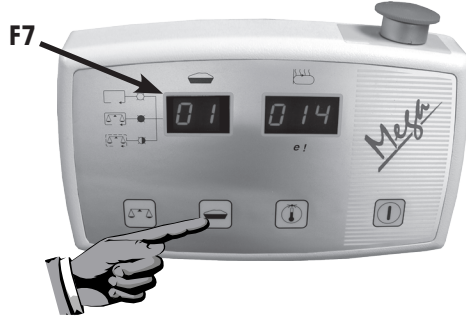
There are three ways to stop the machine:

- Push Stop Button
- Open Top Cover
- Open Side Cover



# Wrapping Programs

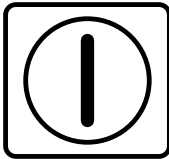
The Program Button (F4) is used to select the package wrapping program. Press the button to toggle through the selections. The program number will be shown on the left display (F7) indicated by the package symbol.



Press to toggle through the programs.

01	<b>Standard Tension Maximum Speed</b>	Highest tension stretch wrap at maximum speed for all small and medium size trays with a low profile.
03	<b>Standard Tension Reduced Speed</b>	Reduced tension stretch wrap at a slightly reduced speed. This program should be used when wrapping larger higher profile trays. This program can also be used when wrapping products in black trays.
05	<b>Reduced Tension, Standard Speed</b>	Reduced stretch wrap at a reduced speed for large, high profile unstable trays, or for delicate and / or soft packages. This program should also be used when wrapping clear plastic trays.
07	<b>Reduced Tension, Reduced Speed</b>	Reduced stretch wrap at a slightly reduced speed for more reliable operation with larger, high profile unstable trays. (Frozen fish, produce or any product which is not stable when being wrapped.)
09	<b>#9 Trays Reduced Speed</b>	Reduced stretch wrap at a slightly reduced speed for more reliable operation with larger high profile 9s and 10X14 trays.
10	<b>#10 Trays Std Speed</b>	Use only when wrapping low profile 10s trays in the portrait mode.

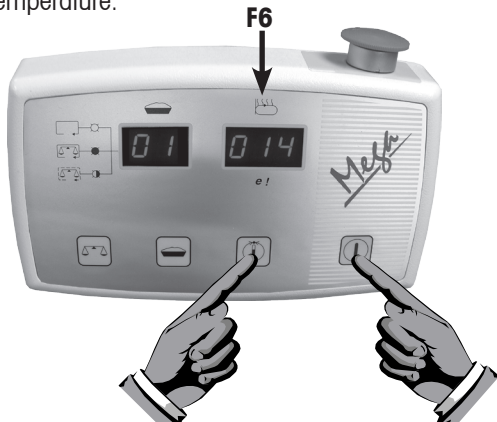
# Sealing Belt Temperature



To set the Sealing Belt temperature, press and hold both the Temperature button (F3) and the Start button (F2). After a few seconds, the temperature display (F6) will increment the value automatically. Release the buttons when the desired value is displayed. Alternately, you can release the Start button and press to increment the value by one on each press of the button. The temperature range in relation to the codes is shown in the table below.

The recommended temperature range is between 20 and 21 (135°C to 138°C). In colder rooms, the temperature may need to be set slightly higher and in warmer rooms, the temperature may need to be set lower.

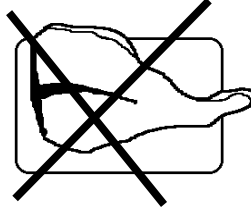
Check the bottom of the wrapped tray after allowing at least 30 minutes for the temperature to stabilize. If the film is melted, reduce the temperature. If the film is not sealed properly or if the film opens easily, increase the temperature.



<b>00</b>	Heat OFF
<b>01</b>	78°C (172°F)
<b>02</b>	81°C (178°F)
<b>..</b>	1 unit on Display (F6) equals 3°C (5.5°F)
<b>40</b>	Maximum 195°C (383°F)

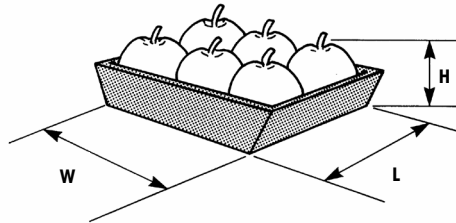
# Tray Specifications

All products must be completely contained in the trays. The trays must also be stiff enough to support the product properly.



The tray dimensions used in the SOLO® MAX must fall within the following limits.

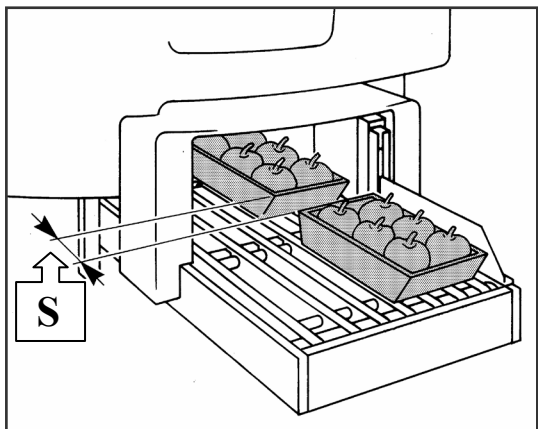
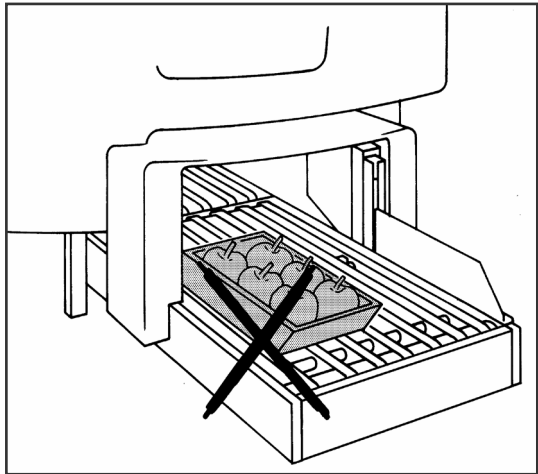
	Minimum (mm)	Minimum (Inches)	Maximum (mm)	Maximum (Inches)
<b>L</b>	180	7.1	400	15.8
<b>W</b>	130	5.1	260	10.3
<b>H</b>	20	0.8	140	5.5



# Loading Trays

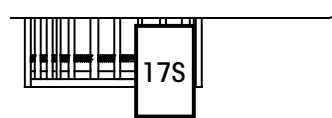
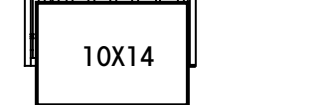
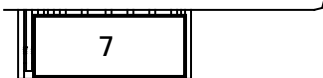
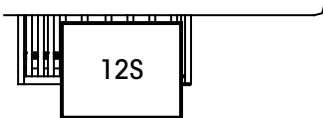
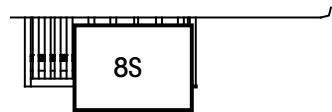
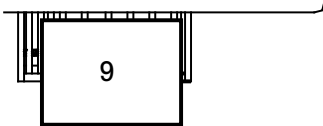
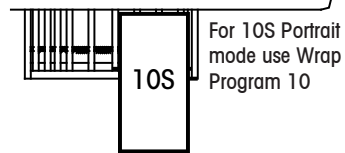
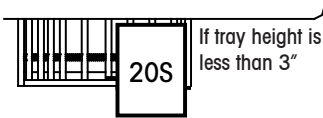
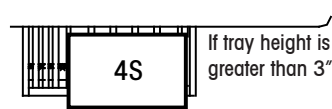
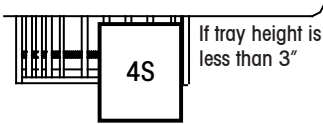
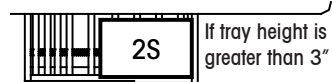
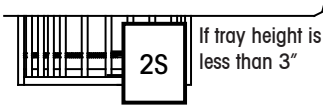
The MAX detects the tray when it is placed on the in-feed conveyor using a photoeye. The tray must be set against, and aligned with, the infeed guide, as shown below. The trays must not be spaced closer than 3 cm (1.2 inches), shown as measurement S in the illustration below.

If the dimensions of the tray exceed the maximum allowed by the machine, the machine will stop in emergency mode and reject the tray.



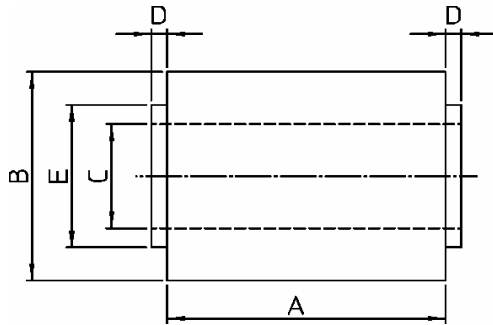
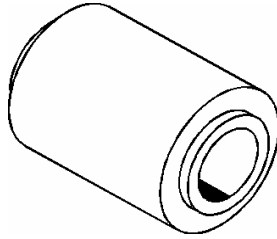
# Tray Orientation

Use the illustrations below for the best orientation to load the trays on the infeed.



# Film Specifications

A high quality stretch film, designed to work on the MAX wrapper is available through Mettler Toledo, Inc. Aftermarket services. Contact your local METTLER TOLEDO® representative for more information on this film and recommendations for other films that will work on the MAX wrapper. The MAX uses 13" film with the following specifications.



- A = 330.2mm (13.0")
- B = Outer diameter of the reel max 220mm (8.66")
- C = Inner diameter 75mm (3")
- D = Less or equal to 16mm (0.63")
- E = Less than 92mm (3.6")



# Loading Film

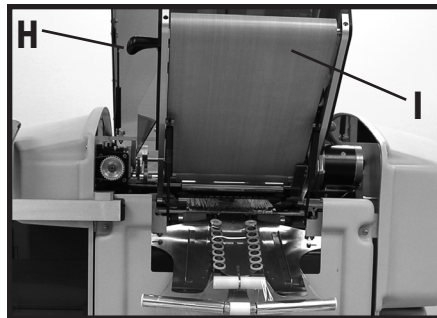
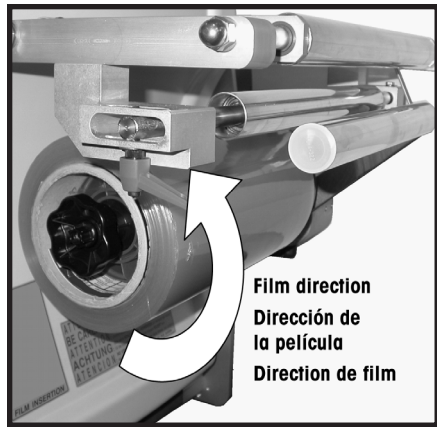
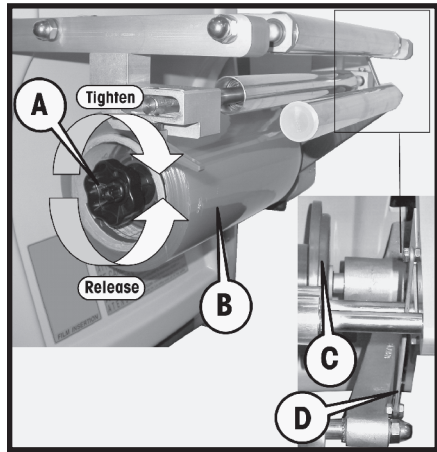
Press the Stop Button. Hold film bobbin shaft and rotate the knob (A) counterclockwise to release any empty rolls. Slide the empty roll out off of the shaft.

Raise the lower roller and lock in the raised position with hanger (D).

Insert the new film roll (B) onto the shaft until the edge contacts the film roll stop (C). The film should unroll counterclockwise from the bottom of the roll.

Hold the film roll and rotate the knob (A) clockwise to tighten the film reel on the shaft.

Open the top cover. Using handle (H), lift the sealina belt (I). Careful! The sec ing belt may be hot.



# Loading Film (cont.)

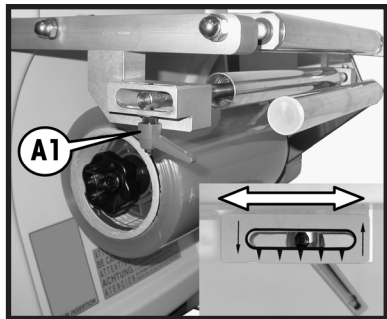
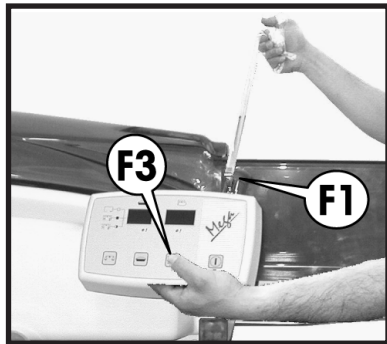
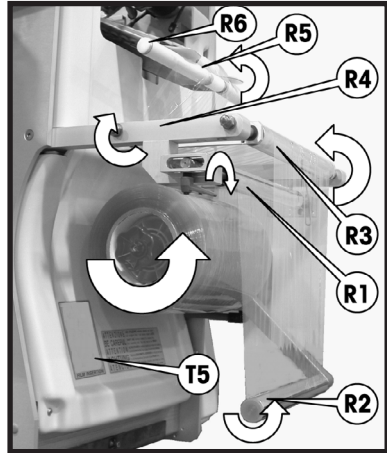
Unroll the film and route the film:

- Over Roller R1
- Under Stretcher Roller R2
- Over Roller R3
- Behind Roller R4
- Over Roller R5
- Into the Film Folders R6
- Be sure the film pulls freely and is not caught on any of the film folder wheels.
- Release hanger lock (D)

Hold the film so it will not slip back, then using Handle (H), lower the sealing belt (I) back down to the rest position.

Pull the film through until it widens out evenly on both sides. Hang on to the film and close the top cover. Release the Stop Button (F1). Keeping the film slightly stretched, press and hold the film cut button (F3) (on the control panel) to cut the film.

For proper operation, the film must be centered in the machine. If the film does not track correctly, use the film tracking adjustment knob (A1) to move the film in the direction of the arrows shown on the decal.



# Daily Cleaning

Always disconnect power before cleaning or performing maintenance on the machine. Turn the main power switch to off (O).

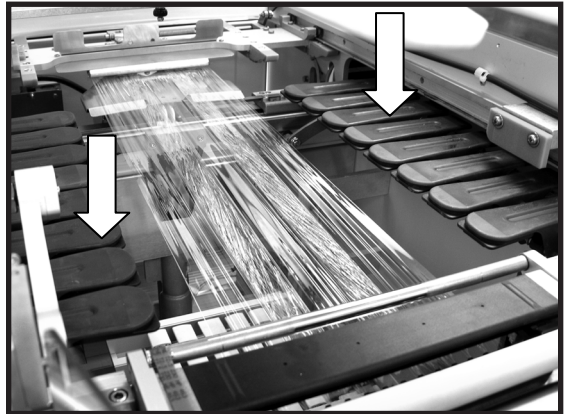


**WARNING**

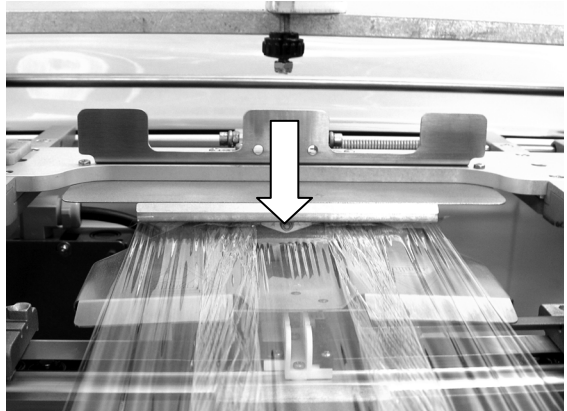
**ELECTRICAL SHOCK HAZARD**

Disconnect and lock out all power to this unit before removing or installing the fuse, cleaning, or servicing.

Open the top cover. Inspect the side clamps and remove any film or product from the clamps. Clean the side clamps with a soft cloth and hot water. Press down on each side clamp to open the clamp, exposing the pads. Clean each with a soft cloth and hot water. Dry the pads with a soft cloth. The pads must be dry before using the wrapper.



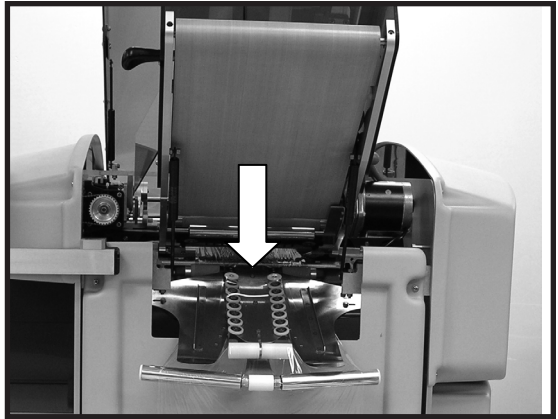
Remove the film and clean the center clamp and pusher with a soft cloth and hot water.



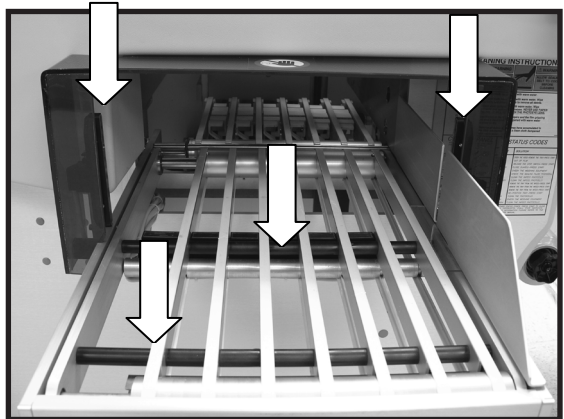
## Daily Cleaning (cont.)

Caution: The Sealing Belt may be hot!.

Clean the belt with a soft cloth and hot water. Using the lift handle, raise the sealing belt for cleaning. Remove any film or product from the film folders and clean with a soft cloth and hot water.

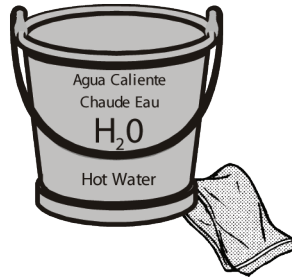


Using a clean soft cloth and hot water, carefully clean the three sets of photoeyes and the infeed belts.

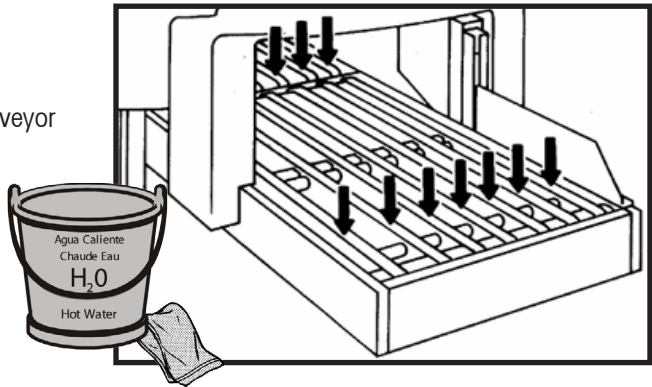


# Weekly Cleaning

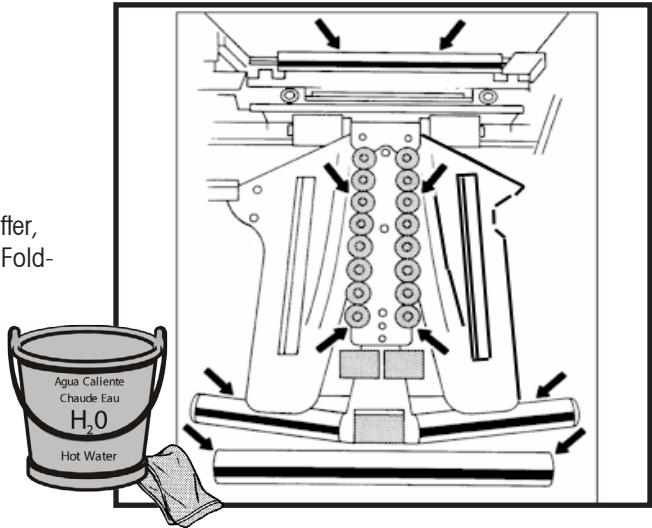
ONCE A WEEK clean the following areas using a cloth dampened with hot water on the parts detailed in this section. Do not use solvents or abrasives for cleaning.



Clean the Infeed conveyor belts and rollers.

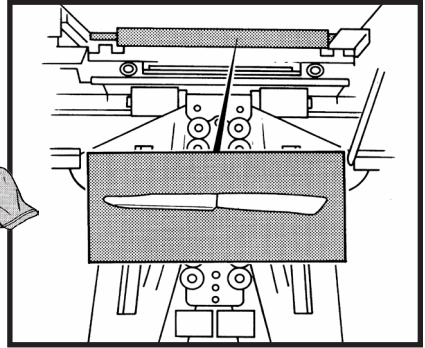
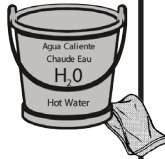


Clean the Package lifter, Center Clamp, Film Folders, and Film rollers.

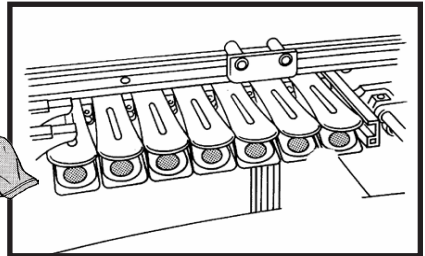
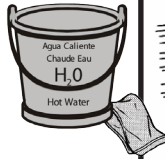


# Weekly Cleaning (Cont.)

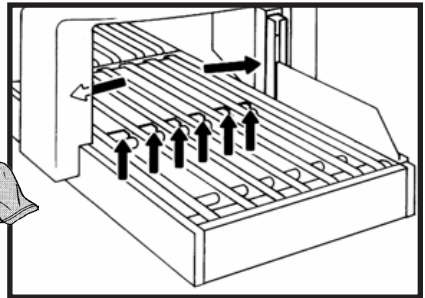
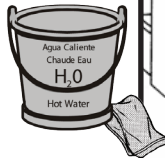
If film is wrapped around the first roller, use a knife to cut the film by running it through the provided slot. Caution! Do not cut into the polished surface of the roller. Clean the discharge rollers on the Sealing Belt.



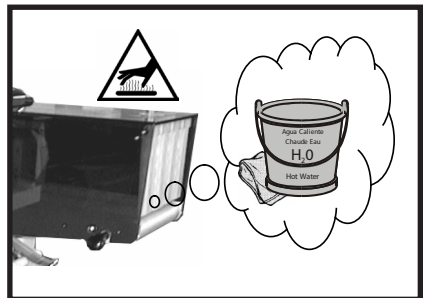
Clean the Side Clamps and pads on both sides of the machine.



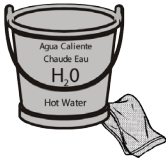
Clean the photoeyes using a soft cloth dampened in hot water.



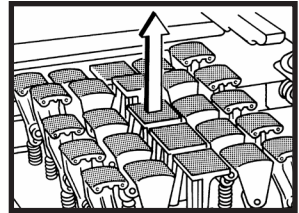
Clean the Sealing Belt. Wait for the surface to cool before cleaning.



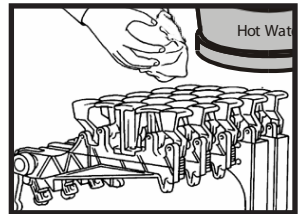
# Cleaning the Package Lifter



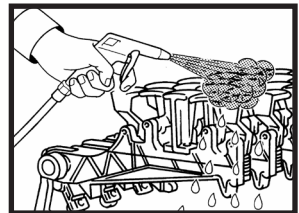
For proper machine operation, the Package Lifter must be kept clean. The lifter can be cleaned from the top of the machine, or from the front of the machine. To clean from the top, use this procedure.



Raise the pressure ski and pull the lifter up. Clean the lifter using a soft cloth dampened with hot water to remove any product and dirt or grease.



Make sure the slides are clean. If necessary, scrape any buildup from the slides. Use compressed air to dry (if available).



Lower the pressure ski before wrapping.

# Troubleshooting

Symptom	Cause	Solution
Film Tearing or Film Tracking Poorly	Bad Roll of film.	Replace film with new roll.
Trays left open, poor overwrap, or no overwrap	End of film roll.	Replace film roll.
	Film Pulling out of center clamp.	Clean center clamp.
	Film Pulling out of side clamps.	Near end of roll - change roll.  Clean side clamp gripper pads and allow to dry.
Not picking film	Sealing Belt not in correct or closed position.	Lift and reclose Sealing Belt.
	Film not loaded properly.	Reload Film.
	Center clamp dirty.	Clean center clamp and allow to dry.
	Film wrapped around distributor film roller.	Remove any film or debris from distributor film roller.
Short Overwrap	Rollers on sealing belt dirty.	Clean rollers on sealing belt.
No Power	Main switch turned OFF.	Turn power switch ON.
	Circuit breaker tripped.	Check store circuit breaker, call for service.
	Inadequate wiring. Blown Fuse.	Call for service.



# Troubleshooting

Symptom	Cause	Solution
Irregular package wrapping.	Film roll out of position	Arrange the film roll in the correct position.
	Film clamp grasp insufficient.	Check and clean Center Clamp and allow to dry.
	Side Clamps film gripping insufficient.	Check and clean the side clamps and allow to dry.
	Film Folder dirty.	Clean the Film Folder.
	Film loading incorrect.	Reload the film.
Package wrapping with irregular film tension.	Work program incorrect.	Check the work program setting. Enter the proper work program.
	Film roll out of position.	Arrange the film roll in the correct position.
	Center Clamp grasp insufficient.	Check and clean the film clamp.
	Side clamp grasp insufficient.	Check and clean the side clamps.
	Film Folder dirty.	Clean the Film Folder.
	Film loading incorrect.	Reload the film.
Poor package sealing.	Sealing belt temperature incorrect	Check the temperature value. If sealing belt is too hot, lower the temperature value.
		If sealing belt is too cold, increase the value.

# Operation Codes

If the SOLO® MAX detects a problem, the following message codes will blink on the console. These codes will not stop the machine operation.

Code	Problem/Cause	Solution
10	Machine idle.	Press START button F2 to start again.
66	Photocell in critical condition	Clean the photocells. If the error persists, call for service.
67	Photocell is flickering.	Clean the photocells. If the error persists, call for service.
80	Waiting for Weigh Complete Signal.	If the error persists, call for service.
81	Waiting for Label Applied Signal.	If the error persists, call for service.
82	One or more horizontal photocells have been disabled.	Clean the photocells If the error persists, call for service.
83	One or more vertical photocells have been disabled.	Clean the photocells If the error persists, call for service.
89	The temperature of the sealing plate is higher than the set value.	Switch the machine off and on. If the error persists, call for service.
90	The sealing plate thermister short circuit.	Switch the machine off and on. If the error persists, call for service.
91	The sealing plate thermister is not working due to an open contact.	Switch the machine off and on. If the error persists, call for service.
92	The sealing plate has not reached the set value.	Switch the machine off and on. If the error persists, call for service.
93	Heater/blower malfunctioning.	Switch the machine off and on. If the error persists, call for service.
94	Exit full signal activated.	Check package transfer to other machines. If the error persists, call for service.
95	The sealing plate's temperature varies with respect to the set value.	Switch the machine off and on. If the error persists, call for service.
96	The internal machine temperature thermister is not working properly.	Switch the machine off and on. If the error persists, call for service.
97	Machine input voltage is too low.	Switch the machine off and on. If the error persists, call for service.
98	The machine speed has been reduced because of defective actuator movement (motor stalls).	Due to problems on other equipment, the machine speed is reduced. If the error persists, call for service.
99	One or more infeed photocells disabled because they are blocked.	Check and clean the photocells. If the error persists, call for service.

# Fault Codes

When these codes are displayed on the console, the machine will stop. The condition must be corrected before restarting the machine.

Code	Problem/Cause	Solution
000	End emergency / waiting for machine start.	Press the START button F2 to start the machine again.
001	Machine ready to wrap.	Press the START button F2.
002	Reset machine's CPU program.	Press the START button F2. Switch the machine off and on. If the error persists, call for service.
004	Tray in machine, open cover and remove.	Open the cover and inspect the machine. Press the START button F2. If the error persists, call for service.
005	RS485 serial communication error with the expansion PCB module.	Switch the machine off and on. If the error persists, call for service.
006	Battery operated RAM error.	Switch the machine off and on. If the error persists, call for service.
007	Battery operated RAM has lost data.	Machine in operation but without data storage. Call for service and report error.
008	Out of film.	Install a new film reel. If the error persists, call for service.
010	Key module is missing during the machine cycle.	Switch the machine off and on. If the error persists, call for service.
011	Emergency stop button on the machine or on the extended infeed is pushed.	Release the Emergency STOP push-button and press the START button F2 to start again. If the error persists, call for service.
012	Top cover is open.	Close the top cover and press the START button F2 to start again. If the error persists, call for service.
013	Infeed Cover Guard Open	Remove tray from machine, press F2.
014	Rear door open or stop button on extended infeed depressed.	Close rear door or disengage Stop button on infeed extension.
015	Infeed safety photoeye blocked.	Check the photocell and clean if needed. If the error persists, call for service.
092	Indexer wait signal time out.	Press the START button F2 to start again. If the error persists, call for service.

# Fault Codes

Code	Problem/Cause	Solution
<b>093</b>	Labeling photocell defective, or package has not reached the labeling photocell.	Check and clean the photocell. If the error persists, call for service.
<b>094</b>	An error has occurred during the Infeed movement.	Press the START button F2 to start again. If the error persists, call for service.
<b>095</b>	The machine did not receive a label-applied signal.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>096</b>	Incorrect movement of labeler.	
<b>097</b>	Incorrect labeler turn sensor.	
<b>099</b>	Program 95 has finished the set number of cycles.	Program 95 has completed the number of systems set without two consecutive errors.
<b>183</b>	No power to motors. Verify the Side door is closed.	Check that all covers are closed and in place. Switch the machine off and then on, then Press the START button F2. If the error persists, call for service.
<b>184</b>	Synchronous Motors have no power.	
<b>201</b>	The lifter has not arrived at "up" sensor.	The lifter has not arrived at the up position. Switch the machine off and then on. Press the START button F2 to cycle the machine. If the error persists, call for service.
<b>202</b>	The lifter has not arrived at the "down" sensor.	The lifter has not arrived at the down position. Switch the machine off and then on. Press the START button F2 to cycle the machine. If the error persists, call for service.
<b>203</b>	Serial communication error of lifter.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>204</b>	Lifter Encoder error.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>205</b>	Faulty ALV Lifter Movement.	
<b>206</b>	Lifter Motor short circuit	
<b>207</b>	The temperature of the lifter servo driver PCB is too high.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.

# Fault Codes

Code	Problem/Cause	Solution
<b>208</b>	a) Lifter movement in Delta limit during a machine reset. b) Multiple sensor switching.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>209</b>	Over voltage of the lifter's driver during a machine reset.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>210</b>	The lifter's driver has reset during a machine rest.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>211</b>	Lifter movement in Delta limit during upward movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>212</b>	Over voltage of the lifter's driver during its upward movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>213</b>	The lifter's driver has reset during its upward movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>214</b>	Lifter movement in Delta limit during downward movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>215</b>	Over voltage of the lifter's driver during its downward movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>216</b>	The lifter's driver has reset during its downward movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>223</b>	Parallel I/O error of the lifter driver.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>301</b>	The center clamp did not reach the sensor.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>302</b>	The center clamp has not left the sensor.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.

# Fault Codes

Code	Problem/Cause	Solution
<b>303</b>	Serial communication error of center clamp.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>304</b> <b>305</b> <b>306</b>	Center Clamp Encoder error. Faulty Cent. Clamp ALV movement. Cent. Clamp motor short circuit.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>307</b>	The temperature of the center clamp servo driver PCB is too high.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>308</b>	a) Center clamp movement in Delta limit during a machine reset. b) Multiple sensor switching.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>309</b>	Over voltage of the center clamp driver during a machine reset.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>310</b>	The center clamp's driver has reset during a machine reset.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>311</b>	Center clamp movement in Delta limit during film unwinding.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>312</b>	Over voltage of the center clamp driver during film unwinding.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>313</b>	The center clamp's driver has reset during film unwinding.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>314</b>	Center clamp movement in Delta limit during tension relief movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>315</b>	Over voltage of the center clamp driver during tension relief movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>316</b>	The center clamp's driver has reset during tension relief movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.

# Fault Codes

Code	Problem/Cause	Solution
<b>317</b>	Center clamp movement in delta limit during film prestretch.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>318</b>	Over voltage of the center clamp driver during film prestretch.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>319</b>	The center clamp's driver has reset during film prestretch.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>320</b>	Center clamp movement in delta limit during package ejection.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>321</b>	Over voltage of the center clamp driver during package ejection.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>322</b>	The center clamp's driver has reset during package ejection.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>323</b>	Parallel I/O error of the center clamp driver.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>338</b>	Ejection photocell B1 obscured during film unwinding.	
<b>339</b>	Ejection photocell B1 not obscured in tray exit phase.	
<b>401</b>	The side-clamp opening cam has not left the sensor.	Press the START button F2. If the error persists, call for service.
<b>402</b>	The side-clamp opening cam has not arrived at the sensor.	Press the START button F2. If the error persists, call for service.
<b>501</b>	During the film cutting movement, the cutter channel sensor was not blocked.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>502</b>	The cutter-channel sensor was not blocked when the channel moved down after raising the film.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.

# Fault Codes

Code	Problem/Cause	Solution
<b>503</b>	The cutter channel has not left the sensor during the film raise movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>504</b>	The cutter channel has not left the sensor during the film cut movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>600</b> <b>601</b>	Blocked or dirty Infeed Photocells.	Remove any foreign matter or clean the infeed photocells.
<b>602</b>	Horizontal photocells blocked and/or dirty.	Take tray or foreign matter away and clean the photocells. If the error persists, call for service.
<b>603</b>	Vertical photocells blocked and/or dirty.	Take tray or foreign matter away and clean the photocells. If the error persists, call for service.
<b>604</b>	The package has not reached the lifter photocell.	Check and clean the photocells. If the error persists, call for service.
<b>605</b>	Photocells reading inconsistent.	Check and clean the photocells. If the error persists, call for service.
<b>606</b>	Foreign object on back of lifter.	Remove any foreign objects obstructing the photoeyes across the back of the lifter. Press Start. If the error persists, call for service.
<b>607</b>	Tray incorrectly centered on lifter.	Remove tray, press Start button, rerun tray.
<b>608</b>	Tray does not block lifter centering photocell.	Remove tray, press Start button, rerun tray. Check for proper loading of tray and proper tray sizes for machine.
<b>611</b> <b>612</b>	Tray too big. Tray is too long.	Place the tray turned by 90° on the infeed. Check the tray sizes do not exceed 400 mm L x 260 mm W. Refer to Tray Specifications. Clean the photocells. Clean infeed rollers and/or belts. If the error persists, call for service.
<b>621</b> <b>622</b>	Tray too short in length. Tray too short in width.	Check the tray sizes aren't smaller than 180 mm L x 130 mm W. Refer to Tray Specifications. Also, check and/or clean the following: photocells, infeed rollers and belts. If the error persists, call for service.



# Fault Codes

Code	Problem/Cause	Solution
<b>623</b>	Tray not present on infeed 2.	
<b>624</b>	Trays too close.	Place the trays on the infeed only when the belts are stopped. Clean the photocells. Clean infeed rollers and/or belts. If the error persists, call for service.
<b>625</b> <b>626</b> <b>627</b>	Incorrect movement of infeed 2. Incorrect state of infeed 2 sensors. Incorrect switching of sensor 3 on infeed 2.	Check infeed 2 area for blockage. Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>628</b>	Tray not aligned with the infeed package guide.	Make sure that the tray is place near to the infeed reference. Clean the horizontal photocells. If the error persists, call for service.
<b>701</b>	The side clamps have not reached the sensor.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>702</b>	The side clamps have not left the sensor.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>703</b>	Serial communication error of side clamps.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>704</b>	Encoder error of the side clamps.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>705</b>	Faulty ALV side clamp movement.	Call for service.
<b>706</b>	Side clamp motor short circuit.	Call for service.
<b>707</b>	The temperature of the side clamp servo driver PCB is too high.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>708</b>	a) Side clamp movement in Delta limit during a machine reset. b) Multiple sensor switching.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.

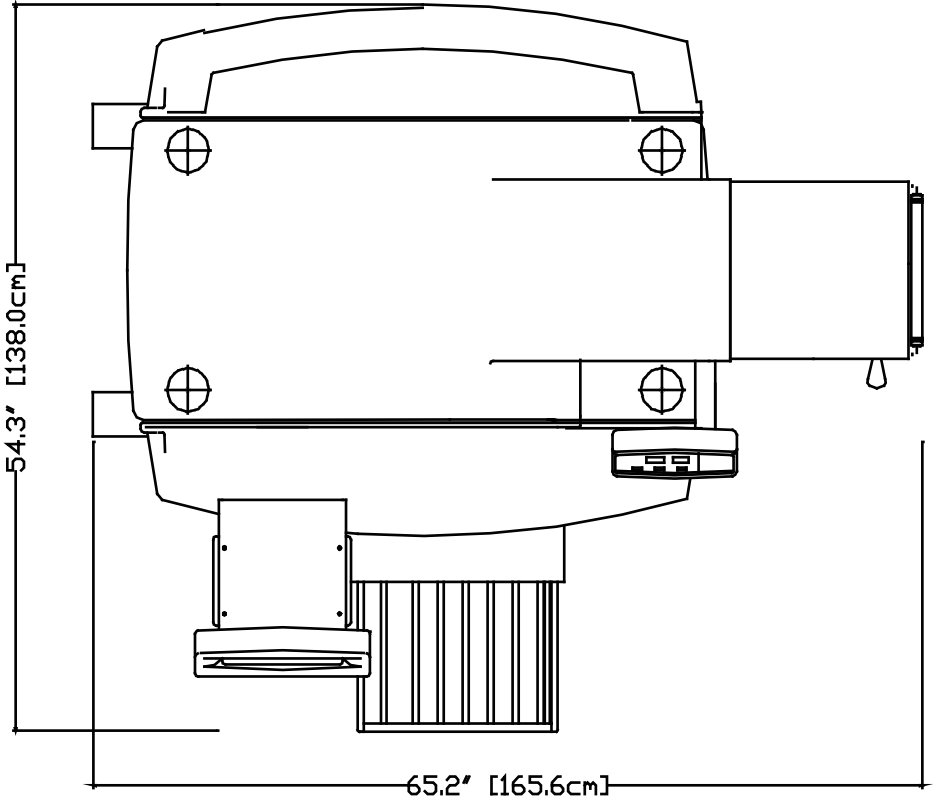
# Fault Codes

Code	Problem/Cause	Solution
<b>709</b>	Over voltage of the side clamp driver during a machine reset.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>710</b>	The side clamp's driver has reset during a machine reset.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>711</b>	Side clamp movement in Delta limit during film grasp movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>712</b>	Over voltage of the side clamp driver during film gripping movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>713</b>	The side clamp's driver has reset during film gripping movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>714</b>	Side clamp movement in Delta limit during film stretch movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>715</b>	Over voltage of the side clamp driver during film stretch movement.	Switch the machine off and then on. Press the START button F2. If the error persists, call for service.
<b>716</b>	The side clamp's driver has reset during film stretch movement.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>717</b>	Side clamp movement in Delta limit during film tuck movement.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>718</b>	Over voltage of the side clamp driver during film tuck movement.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>719</b>	The side clamp's driver has reset during film tuck movement.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>720</b>	Side clamp movement in Delta limit during outward movement.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.

# Fault Codes

Code	Problem/Cause	Solution
<b>721</b>	Over voltage of the side clamp driver during outward movement.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>722</b>	The side clamp's driver has reset during outward movement.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>723</b>	Parallel I/O error of the side clamp driver.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>801</b>	Incorrect switching of lifter control cam sensors.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>802</b>	The lifter control cam sensors did not become blocked.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>803</b>	Switching of the lifter control cam's sensors is out of sequence.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.
<b>810</b>	Lifter Arms dropped incorrectly.	Switch the machine off and then on; press the START button F2. If the error persists, call for service.

# Dimensions



# General Specifications

Shipping Weight	kg	250
	lb	551
Speed	Packs/minute	Up to 30
Voltage	Volts	208 VAC/50-60 Hz, Single Phase
		230 VAC/50-60 Hz, Single Phase
Power Consumption	VA	3000
Recommended Operating Temperature Range	°F	+40°F to +95°F
	°C	+5°C to +35°C
Humidity	%	5% to 95% Non-condensing
Noise Level Specifications	db	Equivalent continuous weighted sound pressure level at the workstation is 75 dB. Tests performed in conformance with EN ISO 11202
Film Specifications	13" stretch film	Film is available through Mettler Toledo Aftermarket. Contact your METTLER TOLEDO® representative for recommendations for other films that will work on the wrapper.





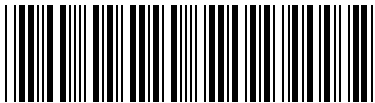
## **METTLER TOLEDO**

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