



RotoLift Pty Ltd
Providing manual handling Solutions

RotoLift Stretch Wrapper Operators Manual



RotoLift Pty Ltd Providing Manual Handling Solutions
View our Product Range visit our web site
www.rotolift.com.au



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Spring Elevator Picture Gallery



Powered Spring Elevator with Stretch Wrapper Attachment

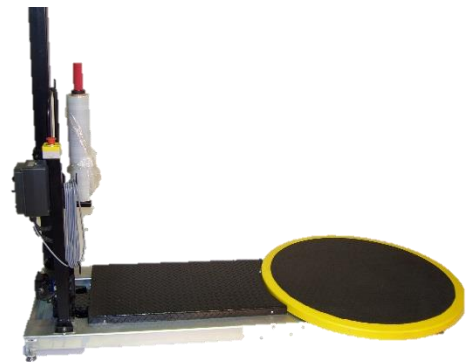


Wrapper

Mast attachment assembly



Controls



Low Level Stand Alone Unit



Introduction

The Patented RotoLift Product Range, Providing Manual Handling Solutions

RotoLift Manual handling equipment is an Australian Designed, Manufactured and Patented Range of equipment that make manual loading, unloading and stretch wrapping of pallets, safer, faster and more efficient.

RotoLift Spring Elevators and Powered Spring Elevator Tables keep the active layer of the picking or packing load, at or above waist height eliminating, bending and lifting.

Our Spring Elevators are a highly effective at reducing the risk of musculoskeletal injuries associated with the picking and packing environment, back strain and injury, are the most common of all work place injuries?

Our patent design also makes removing or replacing springs safer and quicker than any of its competitors.

RotoLift Spring Stretch Wrappers

Incorporating our patented design the pallet elevators a based on a scissor action mechanism, the load is transferred via the patented spring system, wich enables identical capacity springs, 1 to 5 springs to control the applied load (Earlier Rotolift Elevators have up to eight springs to cater for the 2000kg model)

Each RotoLift Spring Stretch Wrapper is supplied with a complete set of springs to suit your required load, a Damper is also incorporated in the design to eliminate any bouncing whilst varying the table top load.

The Turntable Drive is fitted with a directional clutch, allowing the operator to rotate the Table Top by hand.

The one piece heavy duty spun top on all models provides easy pallet loading.

The units are easily re locatable, the Base allows easy access for forklifts or side access for a pallet truck or forklift.

Safety

The instructions in this manual are not necessarily all inclusive, as RotoLift cannot anticipate all working environments and our Equipment may be used in.

The safety of all personnel directly or indirectly involved in operating any RotoLift Equipment is of paramount importance, every effort has been made to ensure the integrity of RotoLift equipment operating under normal working condition.

Therefore, we have identified as many hazards as possible, but not limited to all hazards that may occur in every work place.

RotoLift recommend independent assessment of any equipment and working environment in association with appropriate instructions and S.O.P, s to avoid hazards.

RotoLift have adopted the following system of identifying the severity of the hazards associated with RotoLift equipment.

“Danger”

Immediate hazards that will result in severe personal injury or death.

“Warning”

Hazardous or unsafe practice which could result in severe personal injury or death.

“Caution”

Hazardous or unsafe practice which could result in minor personal injury or property damage.

PRIOR TO COMMISSINING, FOR YOUR OWN SAFETY AND THE SAFETY OF OTHERS!
Please read and follow this instruction manual including all safety instructions and precautions carefully, this manual should be read in its entirety before installing, operating and conducting your own risk assessment.

Transit Damage

On delivery visually inspect your RotoLift equipment for any signs of signs damage, ensure

that all circlips and fasteners are installed transit and have not been dislodged during. Should there be any evidence of damage contact you equipment supplier immediately.

Relocating your Pallet Elevator

“Caution” Damage or injury could result if there directions are not followed.

To relocate your RotoLift Pallet Elevators only use a suitably approved Pallet Truck or Forklift.

The designated lifting points in the base ‘Tyne spaces’ are the only locations that the unit should be lifted from.

Never attempt to relocate the Elevator unless it is completely unloaded.

RotoLift Pallet Elevators cannot be lifted by forklift Tyne from under the top of the table.



This Picture shows the correct lifting methods and positions using the Tyne locations



Description of Operation

RotoLift Pallet Elevators Tables

Rotolift Pallet Elevators are a patented spring assisted pallet loading platform, the platform height self-adjusts in proportion with the load, giving a consistent picking or packing height for the operator.

By keeping a consistent work height, loading and unloading of your product becomes a more efficient, faster, and safer process.

The correct number of load rated springs should be install to suit your specific load this will keep the elevator table at the ideal working height

The spring selection chart shows the relative loads that your Pallet Elevator can operate within.

*Note that new models only have a maximum of 5 springs, your Pallet Elevator will be supplied with five equally rated springs for 1250kg or 2000kg as ordered

Spring selection chart

Number of Springs	Max Kg Loads	
	2000 Kg Pallet Elevator	1200 Kg Pallet Elevator
1	250 Kg	250 Kg
2	500 Kg	500 Kg
3	750 Kg	750 Kg
4	1000 Kg	1000 Kg
5	1200 Kg	1200 Kg
6	1500 Kg	
7	1750 Kg	

8

2000 Kg

Warning

Do not attempt to lock the RotoLift Pallet Elevator in a compressed but unloaded state, when released the potential energy of the springs could cause serious injury or damage

RotoLift Stretch Wrappers



The RotoLift Stretch Wrapper has been designed as a detachable unit which incorporates a Powered / Motorized Spring Pallet Elevator Table and a mast assembly.

The Powered Spring Elevator operates in the same manner as all other RotoLift Spring Elevators, with the added feature of having a motorised turn table.

The mast attachment has an integrated counterweight system to reduce operator effort whilst applying the wrapping film, it also contains the motor control for the table top.



The RotoLift Powered Spring Elevator Stretch Wrapper Powered table has a simple control system which is mounted on the mast attachment.



The operator has full control of the wrapping cycle via the motor control which contains a full function variable speed drive.

Spring removal or replacement

1. The Pallet Elevator must be completely unloaded ie No Pallets or Product.

2. Process

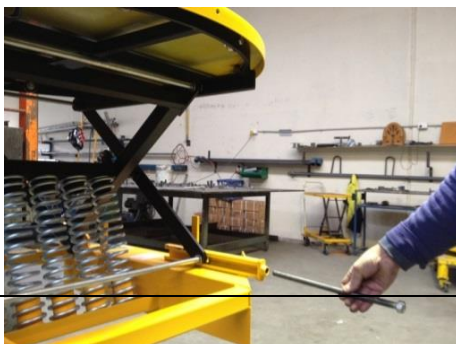
- Remove the Damper Pin & Clip.
- Insert the Jacking Key into position.
- Insert the Jacking Tool into position.
- Rotate the Jacking Tool up to the Jacking Key, Continue to rotate the Jacking Tool until all preload is removed from the springs (Springs are Loose)



1 Remove the Damper Clip & Pin



2 Insert the Jacking Key



3 Insert the Jacking Tool

4 Rotate the Jacking Screw

Spring removal or replacement

3. Now the Springs are loose remove or replace the desired number of Springs
4. RotoLift recommend that the removing or installing springs should be removed or installed in the following manner,
 - One Spring is to be removed it is recommended that the centre Spring should be removed.
 - Two Springs are to be removed it is recommended that the two outer Springs be removed
 - Three Springs are to be removed the centre and two outside Springs be removed
5. Once the spring have been selected to suit the load remove the jacking bolt and key
 - * Note that all the installed springs are sitting correctly in the upper spring carrier.
6. Replace the Dampener Pin and Clip.
7. Test the Pallet Elevator for the correct working height for the required load.
8. Please note that when removing a pallet either loaded or unloaded from a RotoLift Pallet Elevator a Forklift is required, the pallet must be lifted high enough to clear the extended full height of the Elevator before reversing



Connecting The Stretch Wrapper Attachment

The unique feature of RotoLift Stretch Wrapper is the mast assembly is detachable, this allows the mast assembly to be used with multiple Powered Spring Elevator Tables.

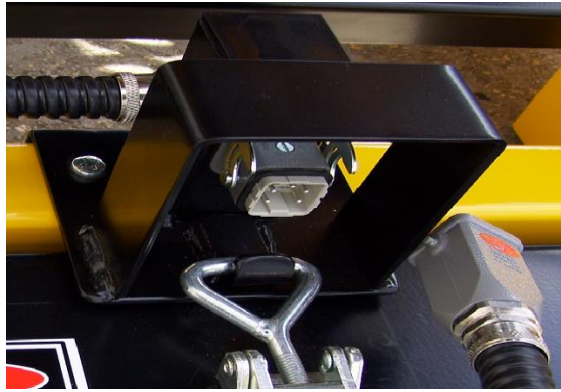
When connecting the Stretch Wrapper to the Pallet Elevator it is important to follow the following steps to ensure the safety of the equipment and the operator.

“Caution” Ensure the power is disconnected prior to connecting or disconnecting the Mast attachment

1. Locate Powered Spring Elevator Table in the required position on a flat solid surface
2. Roll the Stretch Wrapper Mast Attachment up to the Powered Spring Elevator Table.

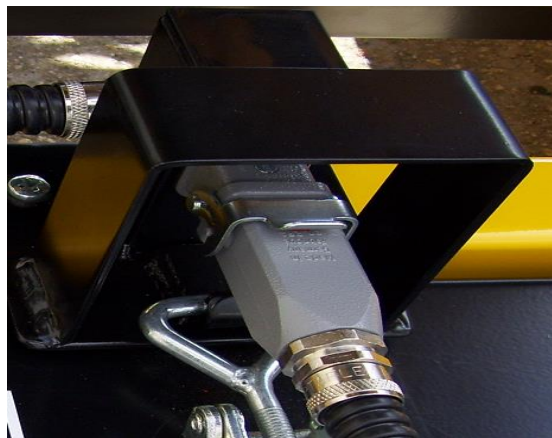


3. Engage the locking catch so the 2 units are connected



Connecting The Stretch Wrapper Attachment

4. Connect the Power Plug from the Mast attachment to the Powered Turn table.



5. Fold down the safety cover over the latch and plug



6. Reconnect the power source to the Stretch Wrapper
7. The equipment is now ready for use Via the motor control

Speed settings and controls (Typical)

To start and stop the machine

1. Release the Emergency stop
2. Turn power on at the Main Power Switch
3. Select Forward setting (Reverse is not activated and will not work)
4. Adjust speed as required
5. To stop the machine select Stop on the direction Selector or switch Forward setting switch to the center position
6. In an emergency push the emergency stop button to stop the unit

Note the default maximum speed setting from the factory is set at 12 rpm and the speed controller adjusts the wrapping speed from 0 to 12 rpm.

“Caution” Suitably Qualified and Authorized personal only, have the ability to reprogram or change the preset parameters of the motor controller.

RotoLift do not recommend any changes to the preset factory settings.

“Warning” If the speed is raised to high Product could be dislodge the load from the turntable.

Emergency stop

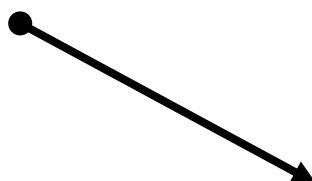


Speed control

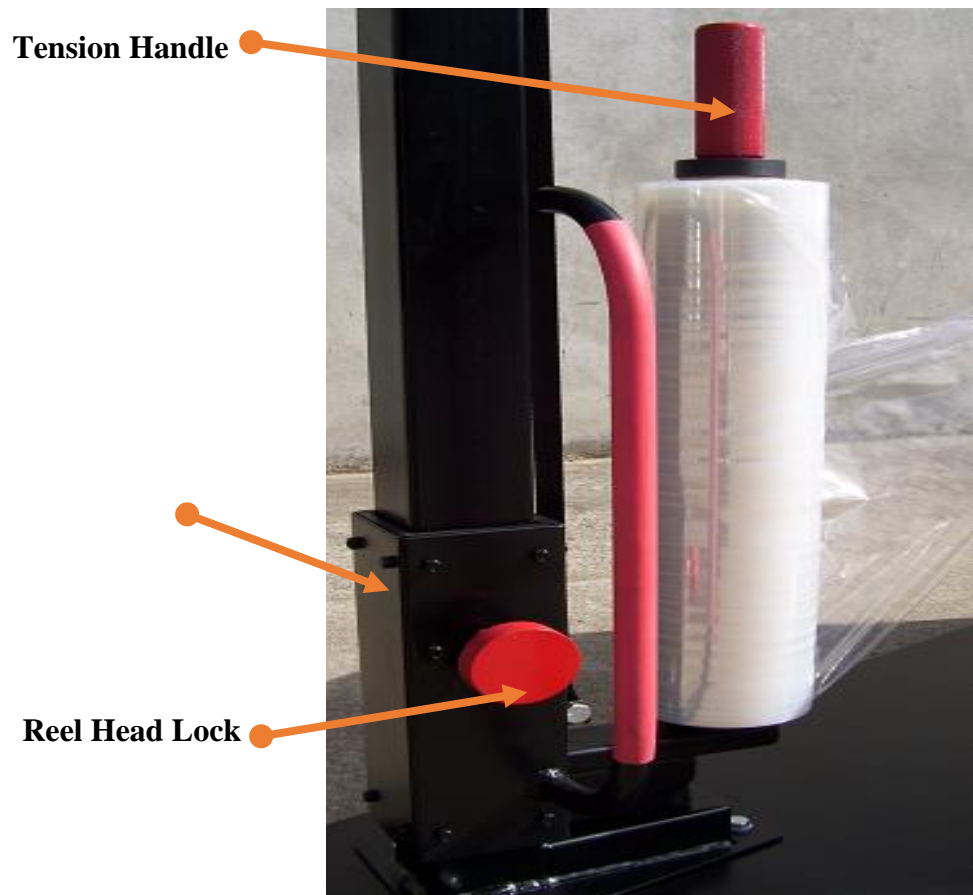
On/Off Switch

Changing reels on the stretch wrappers.

1. Turn the power off to the stretch wrapper
2. The reel head should be locked in the lowest position
3. Undo the tension handle completely and remove empty core
4. Fit new reel of stretch wrap film in place and Install tension handle
5. Unlock reel head
6. Always check the tension when wrapping the first pallet after changing reels and adjust as required



Reel Head



Stretch wrap reels spec's

Max Diameter	150 mm
Width	500 mm
Core Diameter	50 mm
Max weight	7 Kg

HAZARD IDENTIFICATION

This information has been collated to assist you when conducting your own risk assessment prior to commissioning the equipment.

1) CRUSH AND SHEARING INJURIES AS A CONSEQUENCE OF PINCH POINTS

1.1 Risk.

The RotoLift Spring Pallet Elevators and Powered Spring Pallet Elevators have pinch points where the scissor arms intersect and meet the platform base.

A crush injury is possible if a person's body fouls these areas or is caught between the Pallet Elevator and/or Stretch wrapper and the floor or other fixtures nearby. The risk of such an injury is very slight. The RotoLift equipment only moves in response to pallet loading or unloading process and the pinch points develop extremely slowly as the RotoLift moves in the vertically.

There is no injury history associated with the RotoLift in Australia, the passive nature of its operation means that there is only minimal risk of injuries.

1.2 Control Measure.

All operators, OH&S and supervisory personal are involved in the operator Training Process.

Operators should only operate the equipment in a clear working area and ensure that all other personal are clear of the immediate work area so that no one is likely to be caught in the moving parts.

This Manual is read before installing and using the equipment.

2) CRUSHING DUE TO FALLING LOADED PRODUCT

2.1 Risk

Unstable loaded Product may fall off the pallet elevator on to the operator or other personal.

Product is being loaded onto a damaged pallet.

Loaded product is not suitably stackable product.

The product has not been placed centrally on the pallet.

The risk is very low.

Injuries that may occur could be serious if the loads are able to fall.

HAZARD IDENTIFICATION

2.2 Control Measure.

Ensure that the Pallet Elevator is positioned on a level floor.

Only certified undamaged pallets are to be used.

All loaded product is suitably stackable product.

Ensure that loaded product is stacked in a correct manner or stacking pattern.

Separate the Pallet Elevator work area and Pedestrian areas.

Ensure the area around the Pallet Elevator is clear of all personal before operation.

Do not exceed the load capacity of the Pallet or the Pallet Elevator.

Do not rotate the load on the Pallet Elevator more than the recommended speed.

3) BLOW FROM MOVING PLANT

3.1 Risk.

If a pallet is not unloaded properly from the pallet elevator, there is the possibility the table top could spring up with some force and speed, displacing the load or striking a person in close proximity.

There is a low risk of such a blow.

Removal of the load necessitates the use of a forklift.

If a blow is suffered, injuries could be serious.

3.2 Control Measures.

Ensure that forklift operators are suitably licensed and trained, in the correct procedure for the removal of a load from the Pallet Elevator.

Ensure that the forklift is suitably rated for the required load.

Separate the forklift and the personal working areas.

The forklift is required to be operated in a smooth and timely manner, lift the palletized load clear of the extended vertical height of the Elevator.

4) DESCENT DUE TO SPRING FAIURE

4.1 Risk.

In the event that a spring does break the Pallet Elevator may descend at an unknown rate, wich may lead to displacing the palletized load or striking a person in close proximity.

There is a low risk of such an occurrence.



HAZARD IDENTIFICATION

4.2 Control Measure.

Relative load ratings need to be adhered to.

Springs are designed to operate at relativity low stress levels, if a spring does break it will only have been under stress, this may occur when the Pallet Elevator is over loaded. Load ratings and the installation of the appropriate rated springs needs to be adhered to. The Elevator designed allows for multiple springs to be installed at one time damage or failure to one spring would limit the load decent over a short distance with very little chance injury.

Visually inspect the springs for any damage or distortion.

Only install original manufacture supplied and rated springs and refer to the spring selection chart for correct loading.

Elevator Identification

SYMPTOM	POSSIBLE CAUSE	SOLUTION
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All RotoLift Spring Pallet Elevators and Powered Spring Elevator Table carry an identification plate showing the serial number, and relevant Patent numbers.

The plate is located on each side of the base assembly of the unit, this plate also contains a spring selection chart



TROUBLE SHOOTING

RotoLift Equipment will provide years of trouble free service, used in conjunction with this manual and all instructions are followed.

However if any difficulties are experienced please contact your RotoLift Supplier.

The following may help to identify any problems that may occur

Pallet Lifter	Roto lift will not lower	To many springs for load	Remove appropriate number of springs
		Roto lift is mechanically damaged causing mechanism to jam	Inspect moving parts especially roller pathways, pivot pins and shock absorber
	Roto lift will not raise	Not enough springs for load	Add appropriate number of springs
		Springs are broken	Replace broken springs (which are guaranteed for life)
		Roto lift is mechanically damaged causing mechanism to jam	Inspect moving parts especially roller pathways, pivot pins and shock absorber
	Turntable is difficult to rotate Note RotoLift's with powered turntables will only rotate by hand in one direction	Seized or damaged bearings	Check lubrication Replace bearings
Damaged Turntable		Replace turntable	
Stretch Wrapper	Pallet is moving on turntable during wrapping or Wrap keeps breakage	Excessive tension on shrink Wrap	Wind tension handle anti-clockwise to reduce tension
	Stretch wrap is loose on pallet	Not enough tension on shrink wrap	Wind tension handle clockwise to increase tension
	Will not start	No Power	Check power connection
		Not plugged into Pallet lifter	Check plug is firmly seated
Speed set to low		Increase speed setting	
Emergency Stop activated		Release Emergency stop button	
Reel head is hard to raise	Head lock is on	Release lock	
	Counterweight is jammed or not connected	Check condition of strap & replace if required. Check slide ways	

Spare Parts

A full range of Spare parts are available for all units, all parts can be replace if required, including new Bases and Tops Contact your equipment supplier or RotoLift directly. Please quote the serial number, load capacity and Model of your Pallet Elevator when ordering.



Load Springs, all models



Spring Reliever Tool, All models



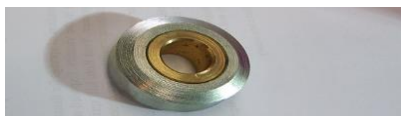
Turntable Bearings



Tie Rods and Rod Ends



Dampener Units



Scissor rollers, all models



Table Top Drive Wheels



Mast Attachment casters

MAINTENANCE

Maintenance schedules can vary with different applications and environments. It is recommended that services be carried out at least every 6 months or more frequently if subject to heavy use or used in a dirty environment.

RotoLift Pallet Elevators

- A. Check that the turntable bearings are not excessively worn or seized.
Replace as necessary.
- B. Check that all pivot pins, circlips and fixings are in place.
Replace as necessary.
- C. Load Springs require Regular inspection damage to protective coating, excessive rust will weaken the springs and effect there performance.
Exposed steel should be protected with metal primer.
Your RotoLift Springs are guaranteed provided your unit is operated under normal working conditions at the appropriate load rating.
- D. Check roller pathways for debris and clean as necessary.
- E. Check running faces of bearings and turntable for caking of debris and clean as necessary.
- F. Visually inspect all pivot points for signs of wear, all welds and moving parts.
- G. Grease when necessary.

RotoLift Stretch Wrappers

- A. Check that the castor wheels roll freely.
Replace as necessary.
- B. Inspect the belt and counterweight are in good condition i.e. not frayed, worn or torn.
Replace as necessary.
- C. Check that the locking device for reel holder is operational.
- D. Inspect electrical lead and plug for damage, contact a qualified electrical contractor for any repairs immediately.

WARRANTY

This manual is not intended to be or create any warranty other than that specified in the warranty section of this document.

- I. It is agreed that the product purchased is subject to the following LIMITED WARRANTY and no other.

- II. RotoLift warrants its product to be free from defects in material or workmanship for a period of 12 months from date of shipment.
Lifetime warranty for springs (limited to correct load ratings)
- III. This warranty shall not cover failure or defects caused by incorrect operation in excess of recommended rated load capacities, misuse, negligence or accident damage, alteration or repairs conducted by third parties not authorized by RotoLift.
- IV. RotoLift will not be liable for any loss, injury or damage to persons or property, nor for damages of any kind resulting from failure or defective operation of any materials or equipment furnished.
- V. Components and accessories not manufactured by RotoLift are not included in this warranty as they are warranted separately by their respective manufacturers.
- VI. **DISCLAIMER OF IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE.**

RotoLift and Purchaser agree that the implied warranty of merchantability is excluded from this transaction and shall not apply to the goods involved in the transaction.

DISCLAIMER OF EXPRESS WARRANTY

RotoLift's agents or distributor's agents may have made oral statements about the product and equipment described in this transaction.

Such statements do not constitute warranties and the purchaser acknowledges, that they did not rely on and agrees not to rely on such statements.

The Purchaser also agrees that such statements are not part of this transaction.



CONSEQUENTIAL DAMAGES

RotoLift and the Purchaser agree that any claim made by Purchaser which is inconsistent with warranty remedies provided with the product and equipment, and in particular consequential damages, are expressly excluded.

MERGER

This warranty agreement constitutes a final written expression of all the terms and conditions of this warranty and is a complete and exclusive statement of those terms.

7.

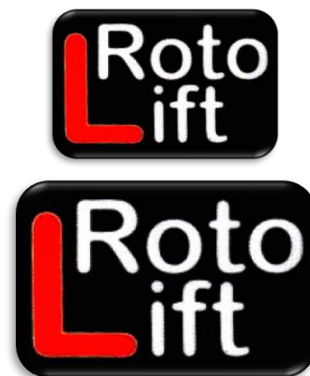
RotoLift EXCLUDES LIMITED LIABILITY

7.1

- (A) RotoLift does not exclude or limit the application of any statutory provision including a provision of the trade Practices Act 1974 where to do so would: -
- (B) Contravene that statute or;
- (C) Cause any part of this clause to be void.

7.2

- (A) RotoLift excludes for itself and for any third party supplier of componentry of software incorporated in any product or equipment all liability claims, expenses, losses and damages made against or incurred or suffered by the buyer of the product or equipment, directly or indirectly including without limitation lost profits arising out of: -
- (B) Buyer misusing or using any product;
- (C) Buyer not being able to use any product;
- (D) Negligence of RotoLift or its employees, Contractors or Agents or of any supplier of componentry or software incorporated in the product in connection with the performance of RotoLift obligations.



YOUR RECORDS

Machine Model Number

Capacity Kg

Serial Number

Purchase Date

NOTES

Amendments