



## OPERATING INSTRUCTIONS

Pallet wrapper

PWS1650



Please read this manual before using the product and follow the instructions it contains!

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## FOREWORD

Congratulations on the purchase of your new PWS1650 pallet wrapper. The PWS1650 has been manufactured from high quality materials, specially designed for durable and reliable use. For your own safety and for the correct operation of the pallet wrapper, please be sure to read and observe these operating instructions before commissioning.

Keep these operating instructions. Check the machine for transport damage. Damaged pallet wrappers must not be put into use. The PWS1650 function is to safely wrap pallets and protect them during transport and storage.

Improper handling may result in injury or damage to the machine. TecMaschin is not liable for damage resulting from improper use of the machine, or from disregarding the specifications and rules of conduct in this operating manual.

The operator / user must ensure the correct use of the pallet wrapper by trained and authorized personnel.

## SAFETY INSTRUCTIONS

Failure to observe the instructions and safety rules, in particular the warnings in this manual, may result in material damage, serious injury or death. Please read this manual carefully before carrying out maintenance and repairs on the machine.

- For indoor use only! Only use the pallet wrapper in a dry and non-explosive environment.
- The temperature should be between -10 °C and 50 °C.
- Use the pallet wrapper only on level ground.
- The machine may only be used by qualified and authorized personnel.
- Only healthy adults may operate the machine.
- Use the machine only for packaged goods.
- Do not turn on the machine when people are standing on the turntable.
- Do not climb on the turntable during use and keep a sufficient distance.
- Never reach into the film carriage during use.
- The machine may only be used for wrapping and stabilizing products with regular forms or with forms that allow stable wrapping.
- When wrapping liquids or soft goods, make sure that the contents do not leak.
- Do not use the pallet wrapper on loose products.
- Adjust the speed so that the products to be wrapped do not tip / fall.
- Moving or removing the fixed upper and lower blocker is prohibited!
- Use the machine only with the film provided for this purpose.
- Adhere to all specifications of the technical data sheet.
- Do not grab the inner mast while the machine is on. There is a risk of injury.
- Switch off the unit before any maintenance or repair.
- Do not wear ties or loose hanging clothing when using or servicing the machine.
- To avoid injury to persons from falling goods, the operator should not approach the machine until the wrapping is complete and the machine is at a standstill.
- If the unit is to be lifted by machine, it must first be secured.
- Transport the unit carefully by the openings on the turntable with a forklift truck.
- Please park the unit indoors while you are not using it.
- Contact us if any parts of the machine need to be replaced.
- Check and service the pallet wrapper regularly (after one year by a specialist).

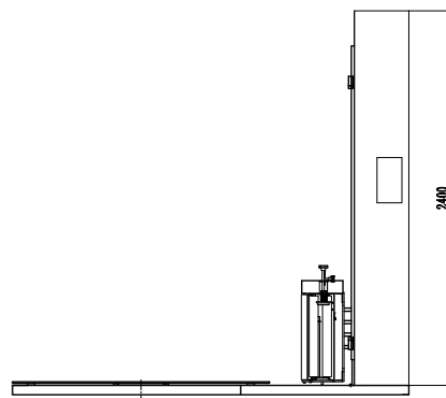
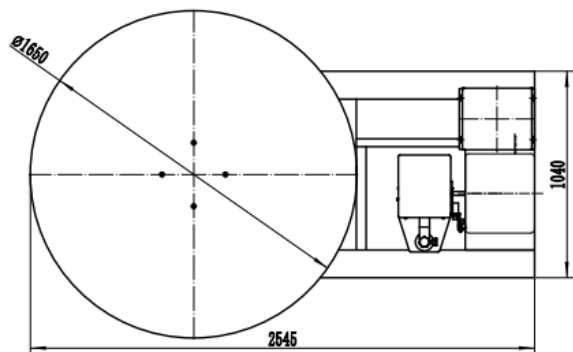
## TECHNICAL DATA

### GENERAL

Type	Unit	Value
Brand		TecMaschin
Model		PWS1650
Height	mm	2460
Width	mm	2550
Depth	mm	1650
Own weight	kg	560
Load capacity	kg	2000
Turntable diameter	mm	1650
Turntable height	mm	85
Maximum turntable speed	rpm	12
Frequency	Hz	50
Voltage	V	220
Performance	kW	1.55
Control system		PLC programmable
Operating speed		20 - 40 loads per hour
Minimum dimensions (of the pallet)	mm	500 / 500 / 500
Minimum weight (of the pallet)	kg	150
Maximum pallet size	mm	1900
Size fork openings	mm	133 × 54

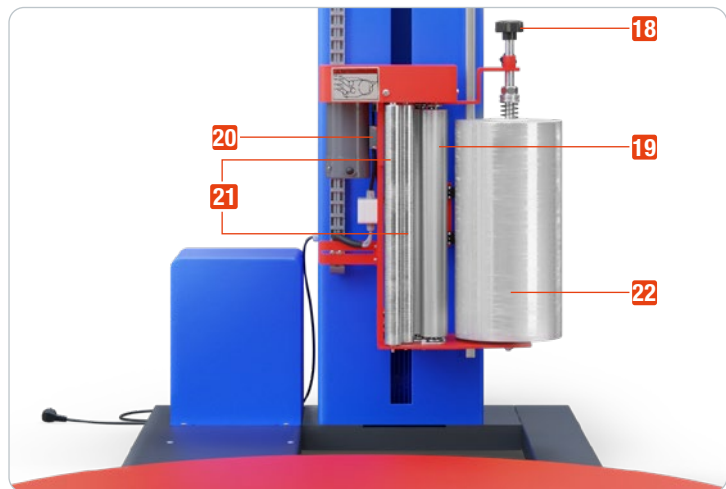
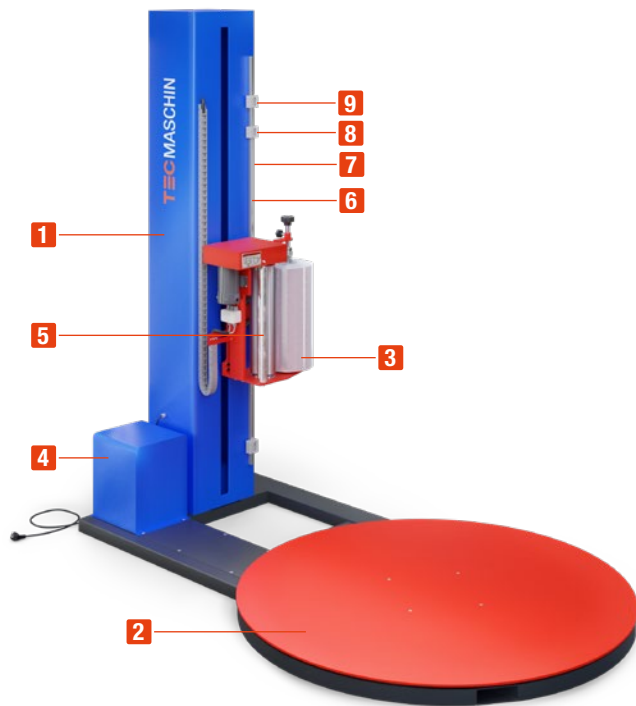
### STRETCH FOIL

Type	Unit	Value
Material		LLDPE film (Polyethylene foil low density)
Width	mm	500
Strength	µm	17 - 35
Core diameter	mm	76
Outer diameter	mm	254
Stretch system		Stretch up to 250%



## OVERVIEW OF THE MAIN COMPONENTS

No.	Name
1	Column
2	Turntable
3	Film slide
4	Turntable motor
5	Film slide motor
6	Film slide bar
7	Control panel
8	Flexible blocker
9	Fixed blocker
10	Display
11	Buttons
12	Key switch
13	Automatic start
14	Foil tension
15	Speed turntable
16	Speed foil carriage
17	Emergency stop switch
18	Film roll bracket
19	Stretch rollers
20	Light sensor
21	Guide rollers
22	Film



## BASIC SETTING FOR FILM WRAPPING

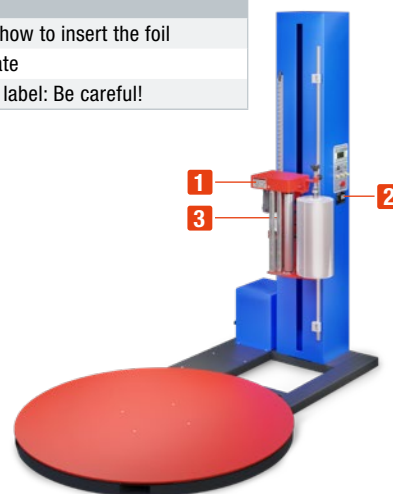
The preset knobs should only be minimally readjusted during operation. The machine was set to the ideal winding process before delivery. The reference here is the power stretch film from TecMaschin.

## SAFETY DEVICES AND WARNING SIGNS



The instructions on the safety labels and in the operating manual must be followed. Please replace damaged or missing safety stickers immediately.

No.	Name
1	Note on how to insert the foil
2	Nameplate
3	Warning label: Be careful!



The pallet wrapper has an emergency stop switch, which stops all functions. After activating it, pull the switch out again. Insert the key and turn it clockwise. For safety and to prevent unauthorized use, the key must be turned counterclockwise and pulled out.

## OPERATING INSTRUCTIONS

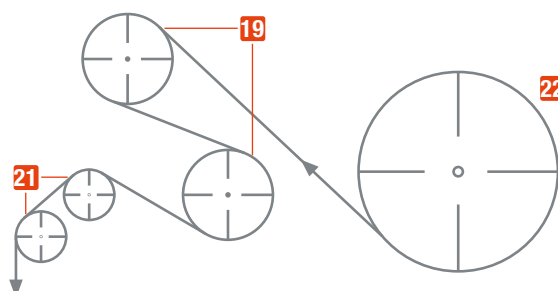
### FIRST STEPS AFTER RECEIVING THE MACHINE

- Make sure that the pallet wrapper has not been damaged during transport.
- Please read these instructions carefully before setting up and operating the machine.
- The pallet wrapper is shipped to you fully assembled and wired.
- Check all connecting parts to make sure that the electrical connections are well and securely screwed.
- Please tighten any loose screws.
- Proper and tight power supply is a must. The pallet wrapper must not be used with an extension cord.
- Check if the film carriage, its feeler arms and the blockers are damaged, if they are in the correct position and working the way they should.
- The chains and the foil carriage of the device have already been lubricated or oiled before delivery. Please check this before operation.
- The photoelectric sensor is not in operation and the film system can be moved up when there is no product on the turntable.
- Transport the machine only with a forklift truck at the side of the turntable.
- Place the pallet to be wrapped so that it does not protrude over the turntable.

### INSERTING THE STRETCH FILM

Disconnect the machine from the power supply. Take care of your hands as there is a risk of bruising. Clamp the roll in the film device (18) and make sure that the roll is firmly seated.

Now thread in the stretch film as shown on the right.



### PRE-STRETCH

The pallet wrapper is set to a pre-stretch of 200 %. This degree of pre-stretch produces the best result, as the stretch film is stretched by the rollers and slowly moves to its original shape after wrapped on the pallet, which keeps the pallets well together. In addition, pre-stretching saves material and is environmentally friendly. Make sure you only use film that is rated at 200 % pre-stretch.



## SWITCHING ON THE MACHINE

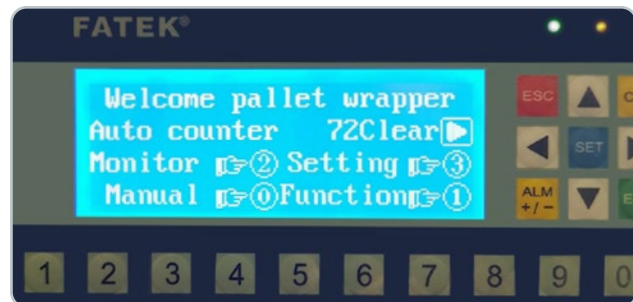
1. Place the pallet carefully on the turntable, making sure that it does not protrude over the edge of the turntable.
2. Make sure that the film carriage is at the lowest position.
3. Knot the end of the stretch film to the pallet.
4. Turn on the power and flip the fuse switch inside the column.
5. Now insert the key and turn it clockwise. The display turns on.

You can choose between a manual and an automatic mode. We recommend using the automatic mode.

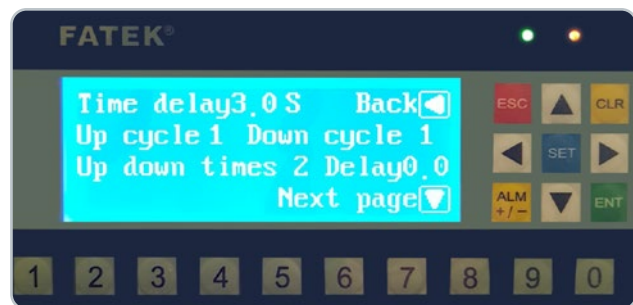
## THE OPERATING PANEL

### Automatic wrapping for uniform bundle

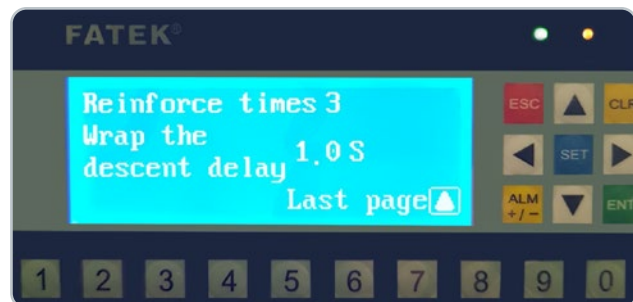
Press the key 3 to enter your individual settings and go to the „Setting“ menu. Four lines will appear on the display where you can set your preferred wrapping. To adjust the numbers press „SET“, then your preferred number and „ENT“.



Term	Explanation
„Time delay“	Set the time delay until the foil system arrives at the highest position
„Up cycle“	Head windings: Press the „Set“ button so that the number flashes, then you can set the amount of head windings
„Up down times“	Here you can set how often the film carriage should move from bottom to top
„Down cycle“	foot wraps: Here you can set the number of foot wraps



After adjusting the quantities, click on the left arrow and adjust the film tension, turntable speed and carriage speed using the buttons below the display. Make sure that you adjust the turntable speed to the pallet you are wrapping so that it does not tilt. The manufacturer has already set a default for wrapping normal pallets.



In a machine with pre-stretching, the film has already been stretched in the film carriage and will naturally tighten on the fabric, so the film tension does not normally need to be set to a very high value.

To start wrapping, press the „Auto-start“ button. The turntable will begin to rotate slowly until it reaches the desired speed. The turntable of the machine should run clockwise. If you press the „Auto-start“ button while the carriage is moving up, the film carriage will stop at that position and continue wrapping the pallet.

The pallet wrapper is equipped with a sensor that automatically detects the height of the pallet to be wrapped (for uniform packs of a defined height). An optional blocker is available if you want to wrap highly reflective or dark pallets. The flexible blocker is a nylon block in which a magnet is embedded. This blocker can be freely moved between the upper fixed blocker and the lower blocker.

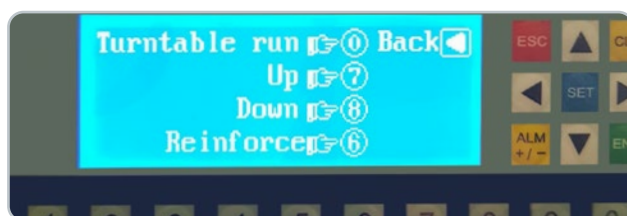
For automatic operation with uneven containers, the sensor must be switched off so that the complete wrapping can be carried out in height. To do this, first press the „Function“ key 1 on the start screen. A new screen window will then open. Here the option „Photoeye“ must be deactivated with key 2. The blocker must be set to the height of the pallet image to be wrapped.

After the machine has wrapped the pallet according to your specifications, it stops in its original position. Then press the emergency stop button / turn off the pallet wrapper, cut the film and carefully lift the pallet from the turntable with a forklift.

### Manual wrapping

We recommend manual use only for testing the machine.

Term	Explanation
„Turntable run“	Press the key „0“, the turntable starts to rotate
„Up“	Press the key "7", the film carriage moves upwards
„Down“	Press the key „8“, the film carriage moves downwards



Turn down the speed of the turntable and press the emergency stop button when you are done.

## REGULAR INSPECTIONS AND CHECKLIST

		Intervals			
		Daily	Every 100 hours	Every 200 hours	Every 1000 hours
1	Clean the machine	•			
2	Clean the lens of the sensor		•		
3	Check the chain / gears under turntable			•	
4	Check film carriage		•		
5	Check limit/proximity switches			•	
6	Check gear motors				•
7	Check electrical system				•

### ELECTRICAL SYSTEM

- Check that all switches, the emergency stop switch and the control buttons are working correctly.
- Check the indicator lights.
- Check the wiring and connections.
- Check photocells and reflectors for proper operation and adjustment (lenses must be clean).
- Check the limit switches and proximity switches for correct function and setting.

### GEARMOTORS

- Check the fan.
- Check the oil level in the gearbox (top up if necessary).
- Check that mounting bolts are tight and tighten as necessary.
- Check and lubricate moving parts as needed.



## TURNTABLE

- Check the gears.
- Check and lubricate the chains.
- Check that the drive gear on the motor shaft is worn and correctly positioned. Align it if necessary.

## FOIL SLED

- Check that there are no foil residues in the brake system.
- Check that the pushbuttons are working.
- The guide construction for the film carriage in the mast must never be lubricated!

## MAINTENANCE

If the turntable slows down or slips, open the generator cover and loosen the four connecting screws. Tighten the screws until the required tension is obtained and tighten them. Contact us if any parts of the machine need to be replaced.

Check and service the pallet wrapper regularly (after one year by a specialist).

## TROUBLESHOOTING

Problem	Cause	Solution
The machine does not work	Main current is switched off	Check the external power supply
	CPS is switched off	Flip the switches in the mast
	Emergency stop is switched on	Release the emergency stop button
	PLC is disconnected	Change the PLC
	Power line is not connected	Switch on the power
	Wiring is not connected	Check the wiring
The turntable does not move	The inverter is broken	Replace the inverter
	The turntable motor is defective	Check the turntable motor
	The knob is defective	Replace the knob
	The chain is defective	Check the chain
The turntable does not stop	The limit switch is not reset	Reset it
	The proximity switch is defective	Replace it
	Manual and autostart occur at the same time	Stop the manual operation
Noise when the turntable moves	The floor is not even	The floor is not level
	The chain and / or the wheel are worn out	The chain and / or the wheel are worn out
Carriage moves to an undefined height, stops and moves down again	Unequal pallet bundle	Switch off the sensor in automatic mode
	Sensor in automatic mode is not switched off	and position the blockers

## SERVICE & CONTACT

Contact our product experts and find help and solutions for your product. Here you will find all contact information listed by country and language: [www.topregal.co.uk/en/service](http://www.topregal.co.uk/en/service)

Responsible for the content:

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[www.topregal.com](http://www.topregal.com)

# UKCA Declaration of Conformity

The manufacturer

**TOPREGAL UK Ltd.**  
**Carlton Drive Crumlin**  
**Gwent NP11 4EA**

hereby declares that the following product

Product name: **TecMaschin Pallet wrapper**      Type: **PWS1650**

Serial number:  
**PWS1650-1000000000 – PWS1650-9999999999**

that the equipment is in conformity with the following relevant UK legislations and applied standards:

**2006/42/EC Machinery Directive**  
**2014/35/EU Low Voltage**

**EN ISO 12100**  
**EN 415-10**  
**EN 60204-1+A1+AC**

Name and address of the person who is authorized, compile the technical documentation:

TOPREGAL UK Ltd.  
Carlton Drive Crumlin  
Gwent NP11 4EA



Place: Crumlin UK  
Date: 12.01.2024

Juergen Effner  
Chief Executive Officer

**TECMASCHIN**