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BAGGAGE WRAPPING SYSTEM

BW-400 stretch wrapper



USER / MAINTENANCE GUIDE
2006



The luggage-wrapping machine BW-400 is designed for use at airports and other transportation hubs for wrapping passenger belongings such as suitcases, bags and other items.

The material for use at the machine:

The model uses stretch-folio rolls (machine type) with following characteristics:

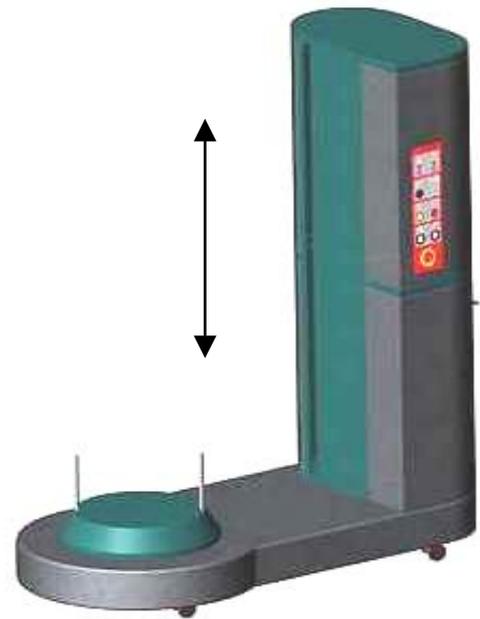
Heat, water, cold & oil resistance;
Transparent or coloured in any colour (blue);
One phase smooth and other phase sticky;
The folio doesn't leave any trace or mark on the surface of the luggage;
Recyclable;
Optional printing of colour strip with logo of the Airport;

Size: - Width 50 sm.

- Thickness: from 18 to 23 microns
- The hard core is 7,5 sm. in diameter (also coreless roll are able be in use with additional roll-holder device)

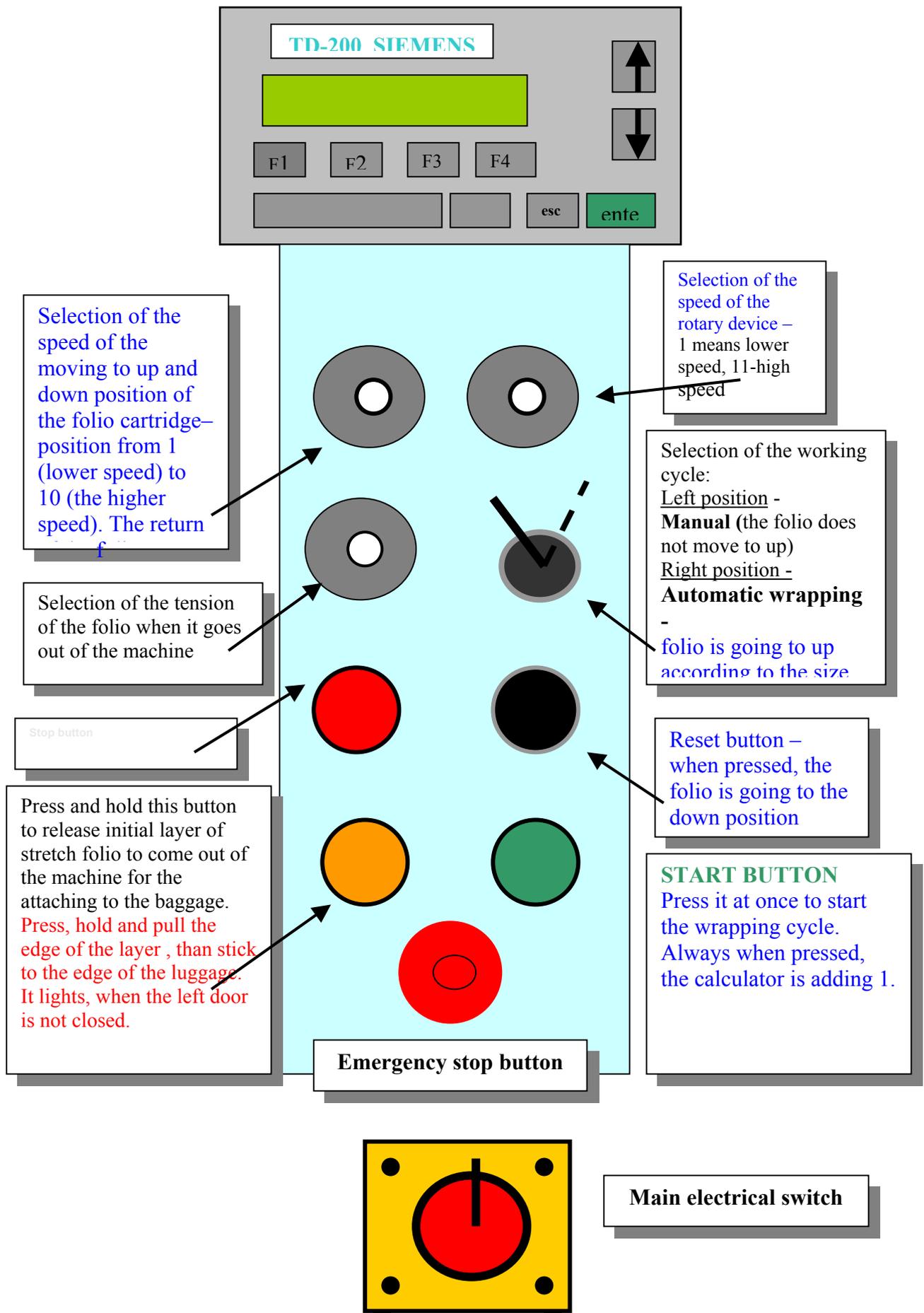
Material: Polyethylene-PE – **non-pre-stretched type**

El. Power supply: 220 Volts / 50 Hertz current
 2 phases + ground, 0.5 KW installed



How to operate on the machine:

1. Place and position the luggage on the carousel (the rotary device), between the two pins
2. Adjust the pins by pressing them first down and than forward or backward, till the pins reach maximum close to the item
3. Take the edge of the stretch-folio from the cartridge, **press and HOLD IT the yellow button from the front panel**, than pull up the folio and rotate over the close pin several times.
4. Select the numbers of the layers on the bottom and the top of the luggage from the main panel (from MDF Titan Moeler pannel).
5. Select the type of the operation: manually or automatically from the black button on the middle of the panel



**Adjustments of the following four main parameters of the
Wrapping machine BW-400:**

- A/ The rotary speed of the rotary device (carousel);
- B/ The speed of the movement of the cartridge with the folio roll (up and down device);
- C/ The time (in seconds), when the folio goes above the edge the luggage, after the red-optic device is detected the last part of the upper site of the luggage;
- D/ The sensitivity of the red-optic device

How to make each adjustment (only if there are any needs to do this):

A/ The rotary speed of the rotary device (carousel) is controlled from the **Altivar11** (speed controller N0 1) – on the left side of the main control panel, named U1.



You have the following keys on the Altivar 11 set:

- **ESC** (Escape): Exits the menu or parameter, or aborts the displayed value to return to the previous value in the memory;
- **UP ARROW**: Returns to the previous menu or parameter, or increases the displayed value;
- **DOWN ARROW**: Goes to the next menu or parameter, or decreases the displayed value;
- **ENT** (Enter): Enters a menu or a parameter, or saves the displayed parameter or value;

You are able to adjust the following parameters:

- **ACC** (menu): Acceleration of the rotary device (in seconds or part of the seconds) – means how fast (for how many seconds) the rotary shall reach the selected speed;

- dEC (menu): Deceleration – means how fast the device shall stop (in seconds)
- LSP (menu): Lower speed – means the lower speed of the carousel, when the selection position of the main front control panel is on the position 1 (1of 10);
- HSP (menu): High speed – means the highest speed of the carousel, when the knob of the front panel is on the position 10 (1of 10)

How to adjust the parameters:

- By pressing the DOWN ARROW you are entering the menu ACC. If you want to reach the ACC parameters, you should press than the ENT button. The present parameter of that menu shall light on the screen. You are able to change the parameter by pressing the UP ARROW (for higher numbers) or LOW ARROW (for low numbers). When you reach the desirable parameter, you should press at final ENT button. The parameter shall be saved in the program. By pressing the ESC button you are escaping the menu one by one to the final menu READY.
- By pressing the DOWN ARROW button twice you are reaching the dEC (Deceleration) menu. Press ENT to see the parameters of the menu. Adjust the parameters with the UP/DOWN ARROWS and than enter ENT to save it. Press ESC to reach the READY menu.

Comments: As big are the numbers, as big are the changes (parameters the speed). The numbers in the menu are showing seconds (or part of the seconds).

- By pressing the DOWN button triple you are reaching the LSP menu – the Low speed of the carousel. Again you are able to change the speed by pressing first the ENT button to see the parameters of the menu and that to select different parameters by pressing the UP/DOWN buttons. The selected parameter is saving by the ENT button. Press ESC to reach the READY menu.

Comments: The numbers of the display are showing the frequency in Hertz.

- By pressing the DOWN button four times, you are reaching the HSP menu: the higher speed of the carousel. Again you are able to change the speed by pressing first the ENT button to see the parameters of the menu and that to select different parameters by pressing the UP/DOWN buttons. The selected parameter is saving by the ENT button. Press ESC to reach the READY menu.

The adjustment is made just the same as the adjustments of the carousel.

IMPORTANT NOTICE !!! The dEC (Deceleration) Parameters of the movement of the cartridge must be very small (0,1 – 0 Sec), because of the requirements of the mechanism to stop very quickly after the signal for lower (or upper) position.

For more details see also: Altivar 11 – User’s manual book

The following factory selection was made for the each machine:

1. The rotary device (the carousel) – Altivar 11 - U1:
Atv-11/0.37 kW adjustment (first set the factory adjustment and than change according to the following cheme)

1		Acc		2
2		deC		0.1
3		LSP		15
4	Fun			
5		rrS		no

2. The folio cartridge – Altivar 11/0.18 kW – U3:



B/ Adjustment of the parameters of the folio-roll cartridge device (Up/Down movement) is made by the **Altivar 11 (Speed controller)**, which is on the right side of the main control panel, named U3.

1		ACC		0.5
2		deC		0.1
3		LSP		20
4	FUn			
5		rrS		L12
6		PS2	LIA	L13
7			LIB	L14
8		SP2		35
9		nSt		L13

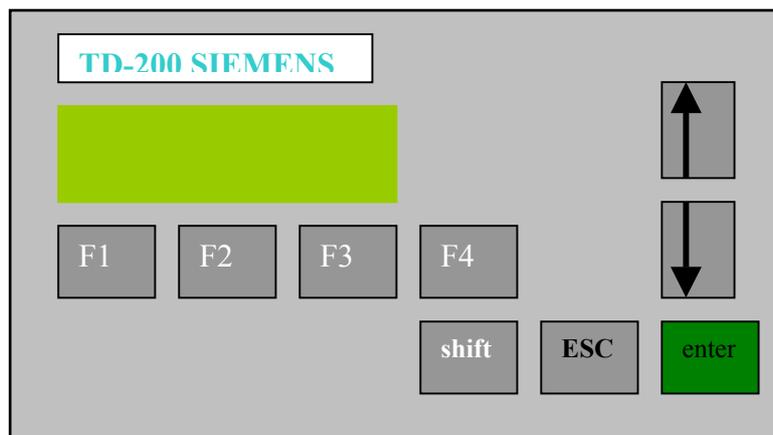
3. Adjustment of the Atv.31/18 kW (pre-stretch device)



The device is controlling the pre-stretch functions.
 Do not adjust the parameters without coordination with the skilled technician!!

1	FUN			
		SAI		
			SA2	A12-NO
2	FUN			
		PSS		
			PS2	L13-NO
3.	FUN			
		PSS		
			PS4	L14-NO
4	FUN			
		PI		
			PIF	A13
			PIC	yes
			rPG	1
			r/G	1
5.	Set	ACC		0.1
6.	SET	dEC		0.1
7	Ctl	Fr1		A11

Adjustment, made from the front panel on the SIEMENS controller:



1. Adjustment of the numbers of the layers on the bottom of the luggage:

__ Bottom layers

- TD-200 screen appearance

2. Adjustment of the number of the layers of the top of the luggage

__ Upper layers

- TD-200 screen appearance

3. Adjustment of the time, when the folio is going upper of the top edge of the luggage (late stop of the folio to the top)

__/10 Delay time up

- TD-200 screen appearance

4. Adjustment of the time for the automatic return of the folio to down (start position)

__/10 Time to down

- TD-200 screen appearance

5. Function KEY F1:

5.1. First position from the screen – adjustment of the sensitivity of the photo sensor;

___/10 Photo sensor

5.2 Second position -

- Calculation of the bags per working shift;
- Erase with function key F2.

Bags per shift ___

6. Calculator of the bags, wrapped on the machine (no erase function)

Main bag counter ___

How to change the parameters:

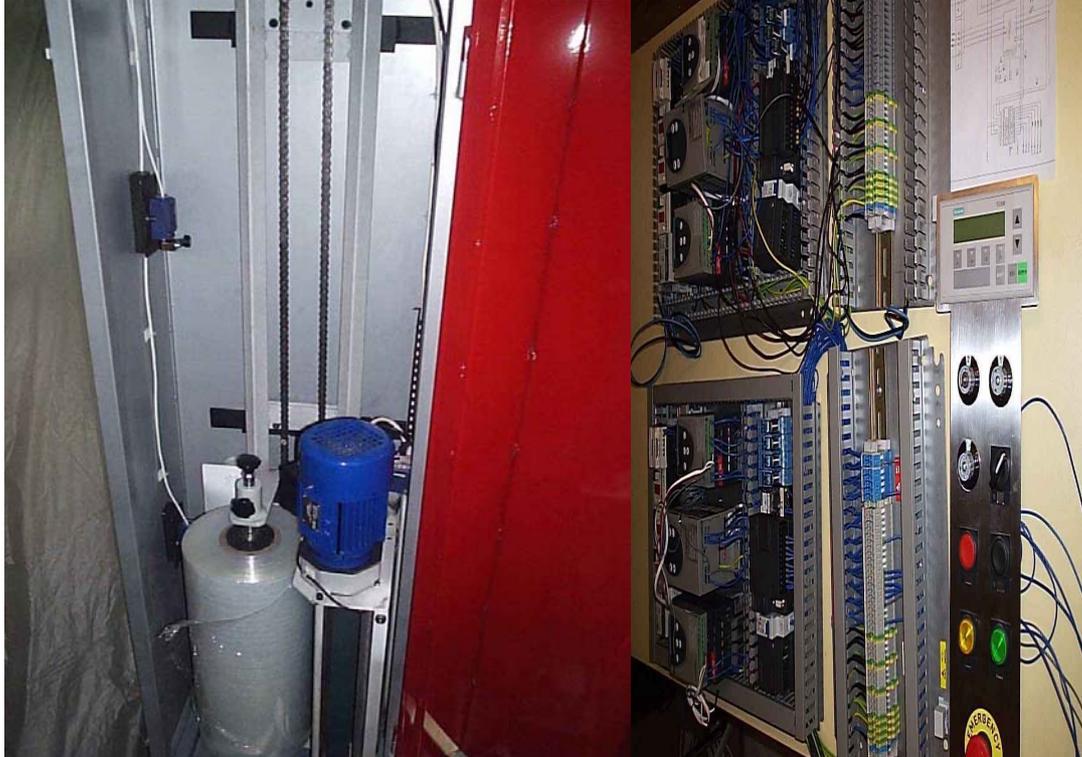
1. Use the arrows to go to choose the parameter  or ;
2. Press ENTER key  to start change of the volume of the parameters;
3. Use the upper  and down arrow  to increase or decrease the parameters;
4. Press the enter KEY  to save the change

Comments: the time parameters are described in size 1/10 of the second (10 means 1 one second)

LIST OF THE MAIN ELECTRICAL PARTS (technical details):

1. Vertical movements engine:
 - type **T71A4B14F85** , **p=0,18 kW** , **1500 min-1**;
2. Reduction gear of the vertical movement:
 - **SW040T i=60**;
3. Rotary device:
 - engine **T63B4B14 F 75** , **P=0,37kW 1500 min-1**;
4. Rotary device:
 - reduction gear **SW050T** , **i=30**;
5. Pre-stretch rolling device (folio holder):
 - engine type **T71A4B14F85**, **P=18 kW**, **1450 min-1**
6. Analog sensors: **XS1-M12AB 110** (rotary device); **XS2-M18AB110** (pre-stretch)
7. Photo sensor: type Osiris XUK. For adjustment, follow the instructions of the guide attached!
8. **SIEMENS** controller – type TD 200 (the front panel) and Logo power supply – 24 Volts, controller type SIMATIC
9. Speed controllers;

- ATV-11/0.18 kW (E series, version 1.2)
 - ATV-11/0.37 kW (E series, version 1.2)
 - ATV-31/0.18 kW (E series, version 1.2)
- (Manufacturer: Telemecanique – France)



Contacts for spare parts or any technical information or support:

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