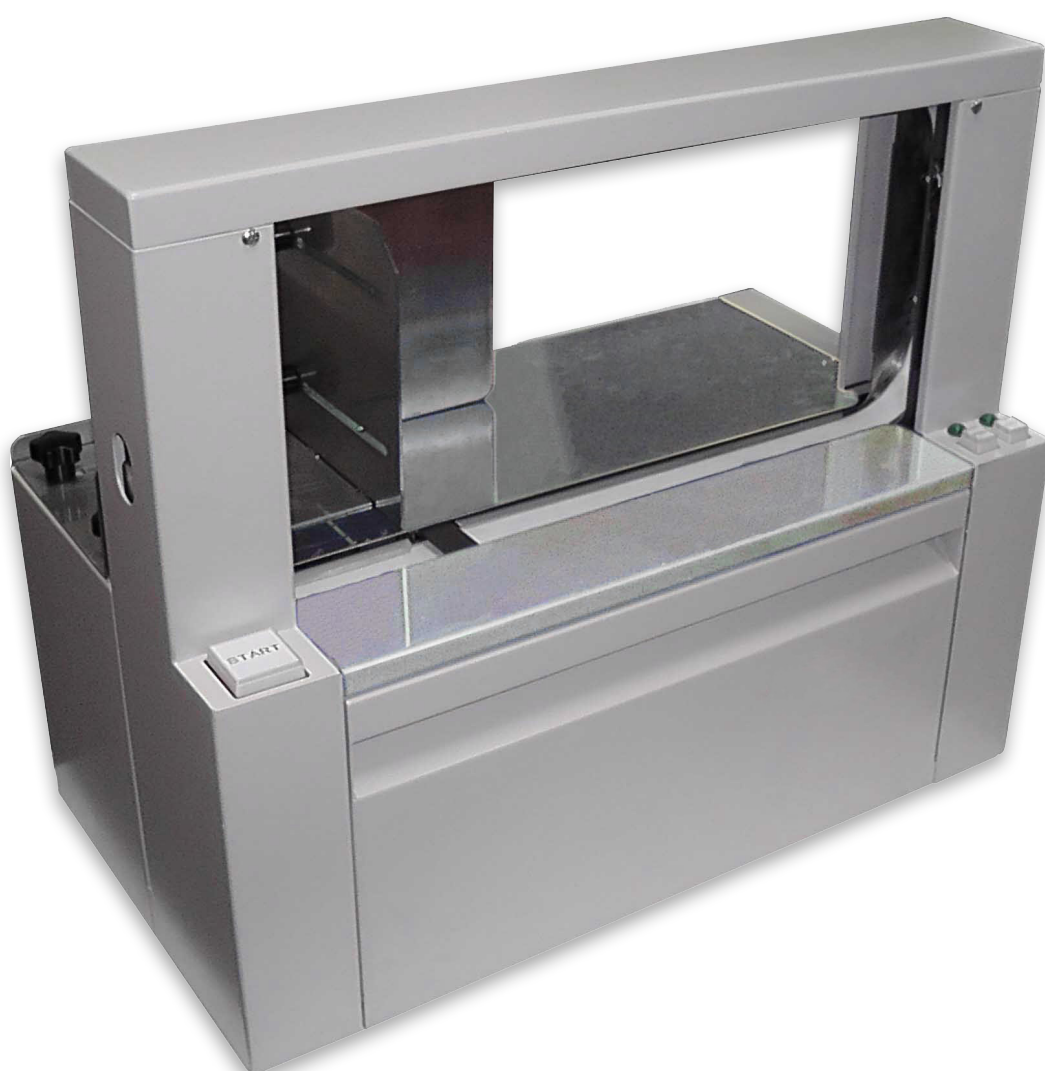




Dumor!

Value !
Quality !
Innovation !

EASYBANDER



USER MANUAL

Read these instructions carefully





The Dumor EAZYBANDER will band all kinds of objects from 4x4cm to 410x 200mm. The machine uses tape of 150M roll x 29,5mm wide x 0.14mm thick and with a core of 40mm or **optionally with larger fork 75 mm core either plastic or paper.**

User Operation

Please study the operation manual.

User maintenance

Each 4 weeks apply a little spray oil light silicone oil into the cam follower guides and onto the clamshell guides.

How the machine works

First time loading

Open the front covers.

Notice the roll feeding diagram.

The tape roll mandrel is clipped on the fork and unwinds clockwise and from the bottom.

Warning

If you put it in the wrong way round the feeding will not take place correctly and the tape may jam.

The front end of the tape has to be cut square and bevelled at the corners to ease the infeed and stop it catching in the guides.

Note on a brand new machine

When the machine is new there may be *some rough corners in the guides.*

These will smooth out during the running in process and the feeding will become faster and smoother as a result.

Decurling the tape before feeding in

The tape coming off the roll will be slightly curled and will catch in the guides.

The tape is manually de-curved so the first part fed in is flat to ease the infeed to the guides.

The feed wheel lever is lifted off by hand to ease the infeed past the feed wheel.

The front edge is fed into the infeed guide funnel slot and then up to the point where you can see it appear in the guide cut out and past the cutting blade until its 50mm into the clamshell guides.

The machine is turned ON.

The feed button is pressed and starts to blink.



The tape should feed around the arch until it hits the stop switch located under the sliding black cover.

The feed light should now be continuously green which means its ready to band.

Blinking feed button light

If it is still blinking then press feed again
and/ or

See what is holding the tape back from the switch.

Ready state green light ON

The machine is now ready to band.

Put the object centrally over the weld head and sensor and hold it firmly in place.

Warning

If the object is not well held and positioned it can move then and then the banding will not be done correctly and the weld may let go.

Start the cycle

Press the START button

Closing and banding cycle

The tape will rewind, and once tight on the object, the weld head will rise, and weld the tape, the cutter will then descend to cut the tape.

Next feeding

A new length of tape will be fed until it reaches the stop switch.

The green light be we lit again.

Taking the product out

Then at the end of cycle the product can be withdrawn.

Do not attempt to withdraw the product before end of cycle or the weld will not be made and the tape will be wasted and you will have to unjam the lost tape.

Multiple bands at the same point

Do not do multiple bands one over the other as you may cause a jam due to the tape thickness.

Product flatness at point of welding

Note the product underside has to be flush level with the sliding guide or the banding cycle will fail.

Unjamming tape automatically

In the event of a failed band, *press START twice quickly and the machine will cut and release*



the tape which can be pulled away by hand.

You will then need to manually re feed a new tape into the clamshells.

Unjamming manually

Alternatively the tape can be released by pressing down on the lever located in the left side frame cut out which will open the clamshells, but the tape will have then to be cut by hand and re-feed in from the beginning.

Problems and solutions

What you see:

1) The tape sticks in the guides and the tape will not feed until the stop switch.

Possible problem(s)

- The guides are set too narrow (less than 29,5 mm standard gauge).
- The tape is **too wide** (more than 29 mm)

Solution

Use the correct spec tape as above.

1a) The tape feeds but **unravels in the clamshells and drops out.**

Reason

The tape is **too thin** and has no body or stiffness and curls up on feeding.

The tape needs to be **0,14 mm thick** or it will curl up on feeding.

Use the correct spec tape.

1c

The guides are deformed by the user.

We have seen that users have deformed the guides by :

- Lifting by the arch.

> The arch is deformed and needs to be re- built.

or

- Bending the curve of the guides by blunt force usually in the corners.

> The guides need to be replaced.

or

- The infeed guide to the cutting blade is displaced due to the user ripping out the tape and deforming or moving the guide upwards so the tape hits the cutter blade and jams.

> The guide needs to be re positioned.

Adjustment possible by technician

Adjustment of the clamshells to widen the clamshell.

Closed position setting by moving the left and right pully axle outwards to open the clamshells slightly.



Adjusting the infeed guide in its slots

Straightening out the guides by hand so that they are evenly open.

2 The guides are blocked with scrap and dust.

> Clean them out.

3 The tape is too weak and crumples on feeding.

> Buy a stiffer roll of tape as per the spec above.

4 The infeed guide is set too low or too high and caught on the weld head.

> Loosen the guide screws and align it exactly with the guides of the clamshells and re tighten.

5 The feeding pressure is too low.

> Increase the feeding pressure turning the pressure knob clockwise.

6 The tape roll is not fully on its holder and catching on the infeed guide.

> Straighten it out.

and /or

The tape roll is too bog for the holder and wobbles.

7 The guides are jammed due to

- Lifting by the arch and bending the guides *> Replace the guides.*

- Lack of lubrication of the guides causing sticking. *> Clean*

- Bent guide due to user abuse. *> Replace.*

- Bent arch due to transport knock. *> Replace.*

8 The weld head or cutting head are stuck in the up position due to lack of lubrication.

> Free up and re-lubricate with silicone oil.

9 Feeding error roll unravelling too much and jamming up.

The roll is not well gripped on the clips and over- unwinds due to lack of grip.

The clutch is defective and doesn't stop the roll at end of feed so it over unwinds.

Or more usually, the mandrel on the tape roll is too large for the gripper forks and it unravels uncontrollably and jams up.

Poor welding

1 The weld head it dirty. *> Clean it.*

2 The weld head is stuck half way *> Lubricate.*

3 The weld head has failed *> Remove and replace by undoing the terminals at the front and back and lifting out the head.*



Poor cutting

- 1 the blades are jammed > *Inspect and lubricate.*
- 2 The blades are dull > *Remove and replace.*
- 3 The blade is stuck too high > *Lubricate.*
- 4 The blade is bent > *Replace*

Errors in detection of the stop position even if the film is fully fed

- *Blinking green feed light*

- 1 The sensor arm under the sliding cover is jammed.
- 2 The sensor finger is not far enough into the sensor fork to be detected.
> *Move the finger a little to the right.*
- 3 The gap in the cover guides is too wide and the whole assembly wobbles giving an erratic signal.
> *Narrow the guides or replace with guides with screws that can be adjusted tighter.*

Errors in the stop home position of the main cam shaft

- *Blinking green auto light.*

- 1 The home position sensor is defective > *Replace it with a new one.*
- 2 The half moon disk is out of position.

Signal errors - *Flashing feed green feeding light*

The tape had not reached the fully fed position in the allocated time.

The usual reason is use of a out of spec tape, or the user bending the clamshell guides.

Flashing green auto light

The machine is :

Sensed to not be in home position on the half moon disc > *Check position*

Control why :

Home position sensor is defective or disconnected (*unusual*).

or

Connectivity problem to mainboard so the signal is absent (*can happen due to transport vibration*).

or

Jammed cutting head jamming the main motor (*can happen*)

or

Broken / loose drive belt (*unusual*)

or

Object to be banded IR sensor is permanently obscured by.

or

The front table opening being displaced and covering the sensor. > *Re position the front cover*

and / or



Dust accumulation on the sensor (*usual*)

> *Clean the sensor*

or

The sensor / connectivity is failing.

Replace (unusual).

or

The main motor had failed (*unusual*).

Replacement of parts

Clamshell halves (time required 3 hrs).

1. Remove all the bodywork.
2. Remove the sliding plate.
3. Unfasten the inner side frame supports from the machine base and undo the tension cable.
4. Undo the cross bolts of the side frame and then lift out the clamshells.
5. Remove the return springs.

Drive belt (30 minutes)

1. Remove the front and rear tables.
2. Loosen the main motor and remove the tension.
3. Remove the belt and replace.
4. Re- tighten the motor and belt.

Weld head replacement (about 30 minutes)

1. Slide out the sliding cover.
2. Remove the front and rear-table.
3. Undo the terminal screws to the head front and back.
4. Unclip the return spring from the screw.
5. With your finger under the screw lift up the guide, as it appears pinch the counter blade so as to ease the sliding out.
6. One screw holds the heater element to the guide body.
7. For re- insertion you need to correctly position the main blade vertically so it will not interfere with the insertion of the guide.
8. The counter blade will need to be pinched to ease the way in
9. Do not force the guide in
10. Re attach the terminals and return spring

Main blade replacement (about 30 minutes)

1. Unhook the return spring.
2. Same as above then when the heater guide is removed unhook the blade from the in-feed guide and twist it anticlockwise so that the screw will fit in the gap of the housing.



3. Refitting can be tricky as it will tend to fall away off the cam before you can get the heater guide in position.
4. Do not force the re-fit.

Infeed guide replacement/cleaning (about 20 minutes).

1. Remove the 2 screws of the infeed guide.
2. Note that the right screw acts as a pivot to allow the guide to be correctly set at the right height vis a vis the clamshell guide.

Mainboard replacement (about 10 minutes).

Remove the rear table. (Note that there are 2 levels of mainboard).

The old one has a vertical row of large thyristors.

The new one has surface mounted thyristors.

Both are available

The plugs are a one way fitting

Home position sensor (about 10 minutes)

Remove the rear table.

Held on the sub frame next to the half moon wheel.

Note there are 2 versions, the later version is labelled Shinkoh.

IR sensor (about 10 minutes).

Remove the front table.

There are 2 versions.

The earlier one is labelled Omron.

The earlier one may not be able to detect dark objects.

The later one is labelled Shinkoh.

The later one can.

A note about the mainboard.

There are several unused terminals on the board.

The left one is for factory testing- not used by user.

The middle one is for computer testing of the board not used by user.

The right one is for the cable set going to the maxi roll stand only used if there is a stand fitted.

A note about the cams

There are 5 :

From left to right.

1 Actuates the clamshells.



- 2 Lifts the weld head.
- 3 Moves the lever that moves the sliding cover.
- 4 Actuates the cutter blade.
- 5 Actuates the feeding arm going lower.

A note about the cut outs on the half moon disk

Large cut out - Home position signal.

Narrow cut out # 1 wind back the table signal.

Narrow cut out #2 heater element switched ON.

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