



Dumor!

Value !
Quality !
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MULTILAM 350 RW Dual MULTILAM 350-650 Linear MULTILAM 360-460-660 Dual



350 RW DUAL



350 LINEAR



360-460-660 DUAL

USER MANUAL



The **MULTILAM** is available in 2 sizes, 350, 360, 460, 650 and 660mm and can be used in several configurations.

NOTE keep about 1M of free space behind the machine for the product to run out.
To let the product bunch up will destroy the laminate !

APPLICATIONS

From the roll of pet or bopp film.

Transfer Guiding also known as Sheening or Sle-king.

Cold / warm pressure sealing using pressure sensitive film (requires rewinder version).

Hot double sided lamination.

Hot single sided lamination.

THE MACHINE CONSISTS OF

- 2 roll unwinders, upper and lower, each with the possibility of several mandrel sizes (usually 1/2/3 Inches)
- Brakes for each unwinder to keep the web tension and to eliminate web wrinkles.
- On the 350 RW only : a paper rewinder for taking up the paper used as a backing for sticky film or Sheening.
- 2 floating tension rollers to tension the film web.
- 2 pressure rollers that can be warm or cold individually selectable.
- 2 traction rollers.
- Cooling fans at the outfeed. (350 + 650)
- Cross cutter bar. (350 + 650)
- A pressure lever.
- A control panel.
- A single side switch.
- An adjustable infeed side guide.
- Film perfering wheel to aid in bursting.
- Decurling system with lever to raise and lower the de curler system.
- Decurler with bar and tension roller
- Guard : note if the guard is not engaged and the locking pins are not fully home the unit will not heat up or run !!!



ON THE CONTROL PANEL

- Forward button
- Reverse button
- Stop button
- Temp setting button Up/Down
- Hot / Cold selector

LED temp display with last setting memory note that the sensor is very sensitive and will display any small change in the roll temp.

The roll temp will tend to reduce when laminating due to the heat being transferred to the substrate.

In this case its important to have the film and substrate at least 24 deg or too much heat will be sucked away from the roll and the adhesion and lamination performance will diminish.

Speed selector from 1 to 9 (9 = approx 3M/min)

Note lamination is a very precise job

It is easy to get a poor result due to :

- Wrong film used
- Wrong temp=> no adherence or if too high burning the print
- Wrong speed => poor adherence
- Wrong substrate(too much silicone or coating)
- Wrong pressure (larger bubbles)
- Dusty substrate (film will have micro bubbles)
- Powder on substrate (film will not adhere)
- Dust in the air (will make bubbles under the film)

The room should be almost a “clean room environment“ for a good result.

Don't blame the machine for the above mistakes !!!

Store the machine with the pressure rolls fully open or you will make flat spots on the rolls...

COLD LAMINATION ALL MODELS

The film is threaded through the rollers avoiding the de curlers (straight through) *see the machine diagram 1* making sure that the sticky side of the film is always kept away from the roll surface!

The two films must be in line with each other (not offset)

Keep at least 1M of free space at the exit of the machine to allow the film to run out !



The film is already tacky at room temp.

Lower the upper roll to meet the lower roll and start the machine up (forward button).

For cold lamination a higher pressure setting on the lever will be needed to chase out bubbles.

Run some film through the machine until the tension is steady (seen by having a wrinkle free web).

In the case of using a paper backing use the rewinder on the 350 RW to take up the paper.

If the wrinkles do not disappear fast you have not well aligned the track of the film or there is not enough brake tension.

Once the film is running well and wrinkle free, align and slide in the substrate to be covered.

For encapsulation leave about 1cm between the sheets.

Once finished raise the rolls

Never store the unit under roller pressure or you will get flat spots on the rolls !

HOT LAMINATION DOUBLE SIDED 70 MICRON PET FILM ON UP ALL MODELS (as above plus)

Heating on both rolls => ON

The film is threaded in the machine following the diagram not using the anticurling system.

Lower the pressure rollers and start the machine , pressure setting medium.

Once the film is wrinkle free insert the substrate carefully.

SELECT THE APPROPRIATE TEMP FOR THE FILM YOU USE

NOTE

- Generally thinner film = less temp / slightly higher speed eg 120/130°C, speed 4 or 5
Thicker film = more temp / lower speed eg 140°C, speed 1 or 2
There is no hard and fast rule, find the best setting by trial.
- A too high temp will tend to burn off the ink on digital print and cause speckling!
- Freshly printed XEROX / KONICA production should be left to air for several hours before trying to laminate to let the silicone oil evaporate.
- The different kinds of print will require different kinds of adhesive on the film eg super sticky for xerox /konica paper
- That on wax based printers the darker colours are thicker than the lighter colours due to more wax being applied to darken the colour, this means that you can see a difference in the film height around the contour of profile of the colour being covered by the film.
- The edge seal of the film on thicker substrates may not wrap fully due to the thickness of the substrate
- That if you trim the film close to the substrate the adhesion and sealing will be diminished

As soon as you stop the production raise the rolls or flat spots will occur !



SINGLE SIDE LAMINATION USING BOPP FILM OF CA 25 - 30MICRON MODELS 350 / 360 / 460 / 660MM

In this case only the upper roll holder is used and the only single side switch is enabled on the back of the machine.

Feed the film through the de curler you need to use.

Thicker paper => roller de curler (*360, 460, 660 only*)

Thinner paper => bar de curler (*All models*)

By trial you will find the right height of the de curler to get the flat output.

Output curling upwards => increase the de curler height

Output curling downwards => decrease the de curling height

Speed 1 to 3 depending on the film

Pressure setting higher

Heat ca 110 to 120°C

a too high temp will blister the digital print !

Optional film strippers in position and engaged to cut the film to width

Insert scrap paper before lowering or you will foul the opposite roller !

The scrap paper is to get the film web and machine stabilised before committing to produce.

Film must be narrower than the paper or you will foul the opposite roller !

Have the next sheets ready to insert!

Infeed overlap the sheets by ca 5 mm to avoid fouling the opposite roller !

1. Lower the rolls
2. Start the machine
3. Let the wrinkles disappear
4. Keep feeding continuously !
5. Once stabilized use the real paper
6. Be careful always to keep an overlap !
7. Last sheet is scrap paper !
8. Once finished raise the rolls and turn OFF



If you use the film stripper wheels you will need from time to time to remove the waste film or the cutters will jam on the roll.

The wheels are a wear part

GUILDING REWINDER model only

The temperature should be set at the film makers specified temp, usually 110 - 120°C

A low speed should be selected.

NOTE *that you can try guilding on grained surfaces but the guild many not penetrate fully into all the cracks in the grain.*

The machine is set up in the same way as single side lamination but without the anticurling being used.

The film is stripped from the sheet by the upper rewinder shaft and roller reeling in the used transfer film leaving the guilded sheet to exit the machine free from the film.

The film has to be taped to the rewinder roll and at least one turn of the roll is done to enable a clean - wrinkle free rewinding to take place.

ATTENTION that the film path is straight or wrinkles will ensue.

GUILDING/ SHEENING/ UV EFFECT /SL--KING TIPS

IMPORTANT

The substrate needs to be.

Flat no wrinkles or folds or bumps.

Smooth surface no surface effect.

Not porous or grainy.

At room temperature.

MACHINE SETTING

Medium braking on unwinder roll to eliminate wrinkles.

Medium tension on rewinder roll to pull out the film cleanly.

Speed 1

Highest pressure setting

Temp setting 120deg to 130 deg depending on substrate and film used



Upper heat and lower heat both ON.

Upper heat alone will not give enough sealing effect.

Toner needs to be min 200% black coverage.

If you cant feed the height difference between the print and the sheet the coverage is not thick enough to make the guild stick.

Use a first class guiding film that adheres well to the toner.

Certain low quality films will give a spotty coverage or pull away.

Make sure the outfeed sheet is not taken up in the rewinder roll.

Once finished remove the roll pressure to stop flat spots on the rolls.

MAINTENANCE

Unplug the machine, let the machine cooling !

- Clean the rolls with rubbing alcohol to remove glue deposits
- Make sure brake is working
- Make sure tensioner rolls are free moving
- Make sure the rolls are not worn and are with no flat spots

The silicone rolls are wear parts and may need to be changed after some years of use.

There is a drive chain in the side frame and it should be greased each year by a trained technical person.

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DIAGRAM 1
Decurling SingleSide

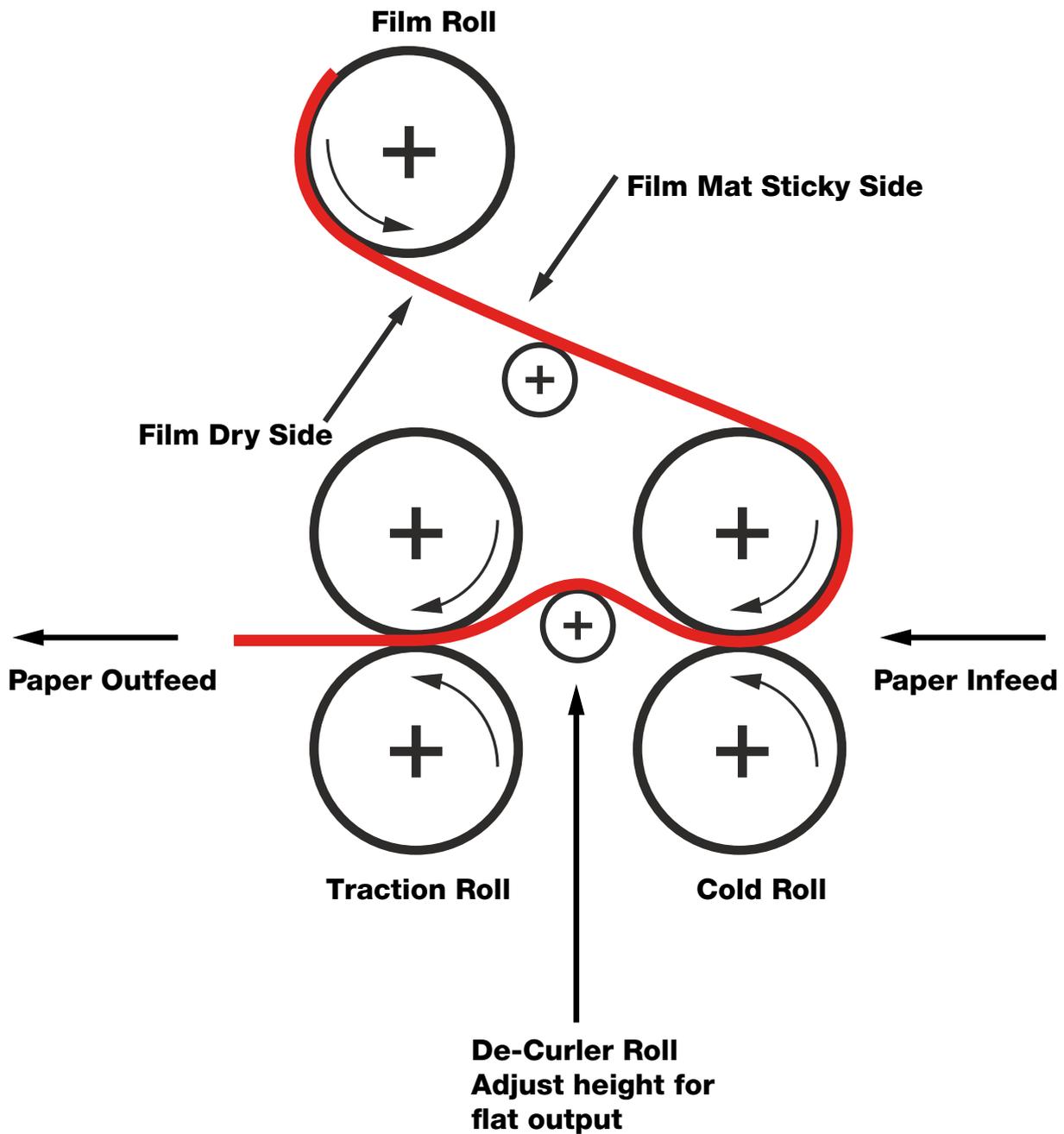




DIAGRAM 1A
Double Sided

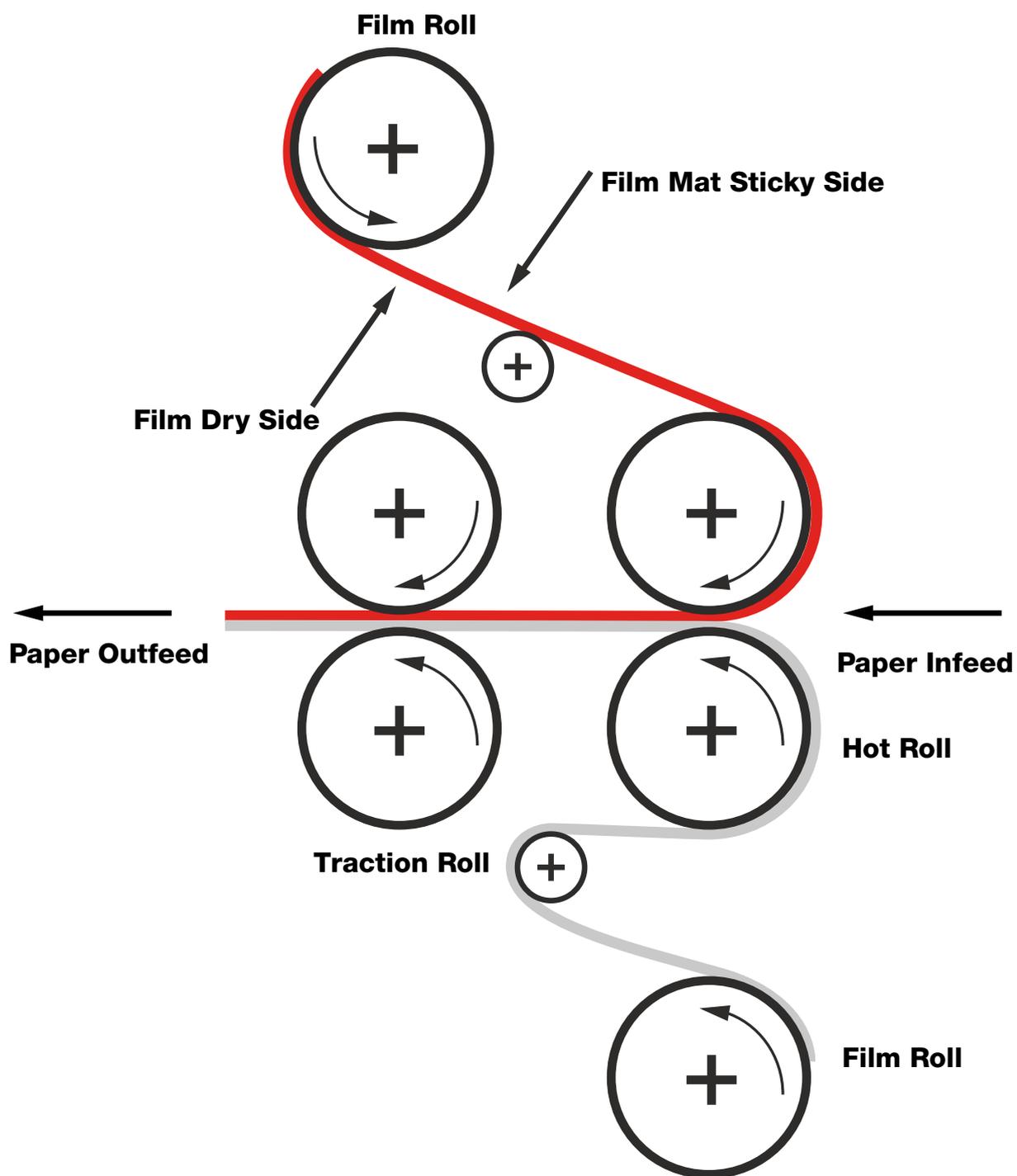
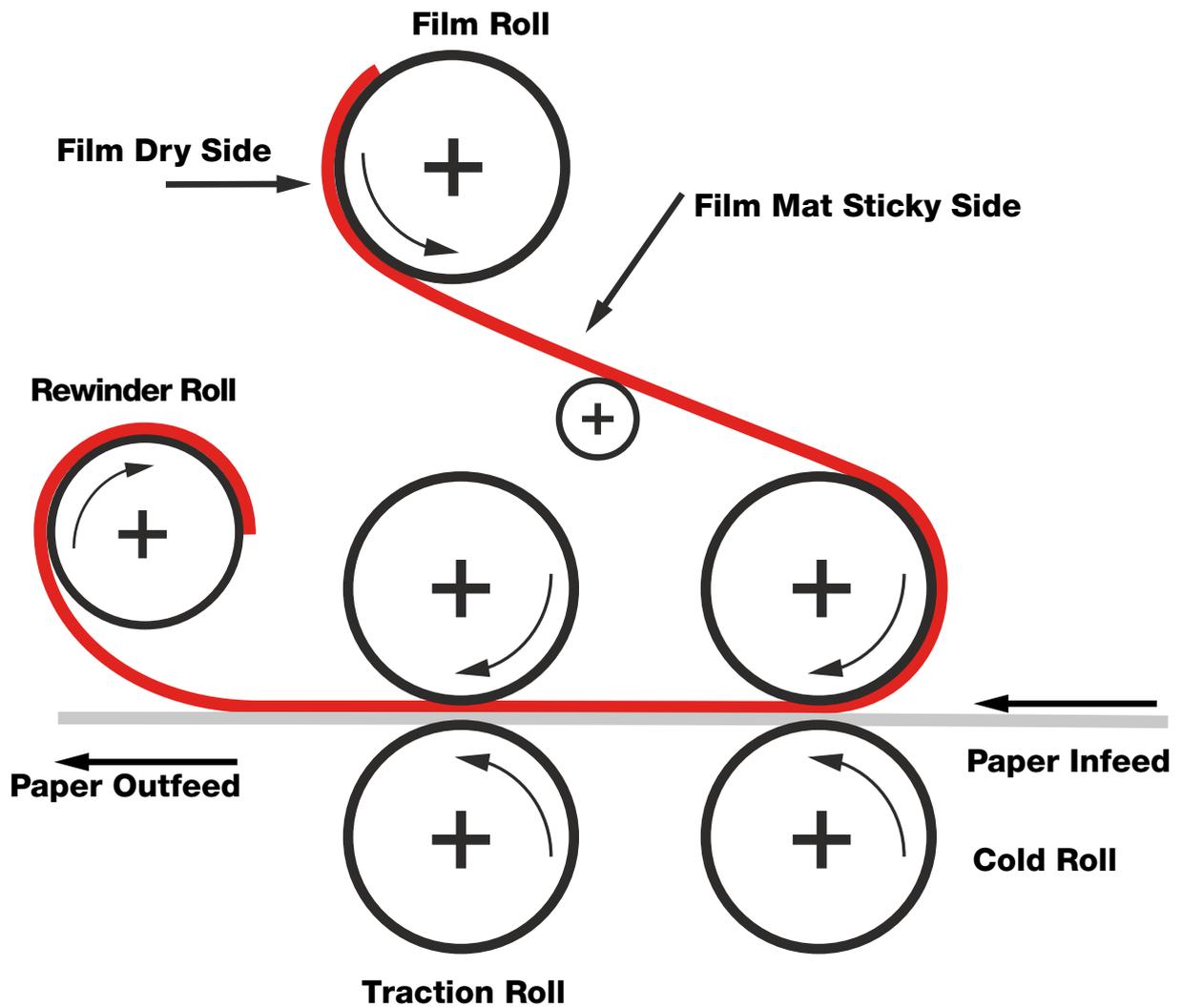




DIAGRAM 2
Rewinder for Sheening







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