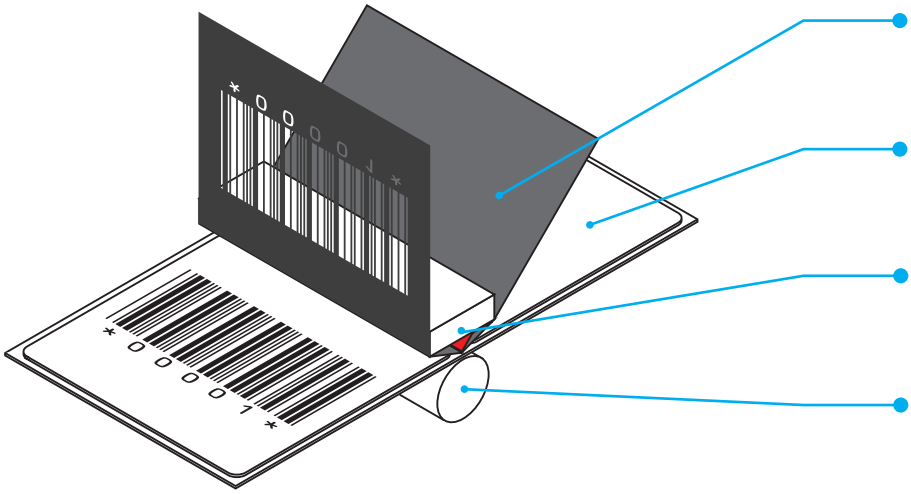
NORTH&SOUTH LABELS

Thermal Transfer Printing



Ribbon
When the ribbon is heated the image is transfered to the label.

Labels
Most label materials can be thermal transfer printed.

Printhead
Consisting of a row of elements which can be selectively heated.

Platen roller
A rubber roller that friction feeds the media and provides a surface for the print head to press again.

The Thermal Transfer Printing Process
The thermal transfer printing process works by the application of heat from a print head to a thermal transfer ribbon (sometimes called a foil). The heat melts the ink on the ribbon which is transferred to the surface of the label.

Ribbon Types

Wax ribbons
Wax ribbons are suitable for use with paper labels that don't need to withstand rubbing or scratching. Because wax is soft it is relatively easy to smudge the print. Although an image can be transferred onto synthetic labels with wax ribbons this combination should be avoided as the image doesn't fuse to the plastic surface so it can be easily wiped off.

Wax/resin ribbons
Wax/resin ribbons are formulated from a combination of wax and resin substances. The resulting ribbon prints well on paper and plastic labels. The hard resin makes the printed image much more resistant to smudging and scratching so is an excellent choice if the labels need to last a long time. Because the resin has a higher melting point than wax it is necessary to run the printer at a higher heat setting when using this type of ribbon.

Resin ribbons
Resin ribbons are intended for use with plastic labels. Together they offer the ultimate resistance to harsh environments includng contact with oils and solvents. Higher temperatures and slower speeds are required to produce crisp clean images.

Print Quality & Maximising Print Head Life
Aside from using a compatible combination of labels and ribbons the key considerations in achieving the desired print quality are temperature, speed and pressure. If speed is increased the heat or darkness setting will normally need to be increased. If the speed is decreased the heat setting can be decreased. Print head pressure needs to be sufficient to allow the ink to transfer. It also needs to be balanced across the label to ensure that the darkness of the print is even.

Print heads are a consumable item. The print head is made up of elements which are heated individually to produce the printed image. It is these elements which fail. When elements fail a line of missing print can be seen running down the length of the label.

You can gain the maximum life from your print head by ensuring that you run at the lowest temperature and pressure setting that produce the required print quality.

Print Head Maintenance
Over time a residue from the back coating of the ribbons builds up on the print head. This will eventually lead to a lowering of print quality if no action is taken. The print head should be cleaned after each ribbon change to minimise the build up of residue.

North & South Labels Limited
Unit 1, 56a Bensham Grove, Thornton Heath, Surrey, CR7 8DA | T. 020 8653 4477 | F. 020 8653 5666 | E. sales@nslabels.co.uk | W. www.nslabels.co.uk
Registered in England No. 3740586 | VAT Registration No. 724 7259 24