

**Contribution to Business
Awards 2008**

U N I P A T H


**Unipath Ltd, Bedford
MK44 3UP, UK.**

**Presented by Usman A. Rana
18th June 2008**

- Unipath is the inventor and worlds leading producer of home pregnancy tests

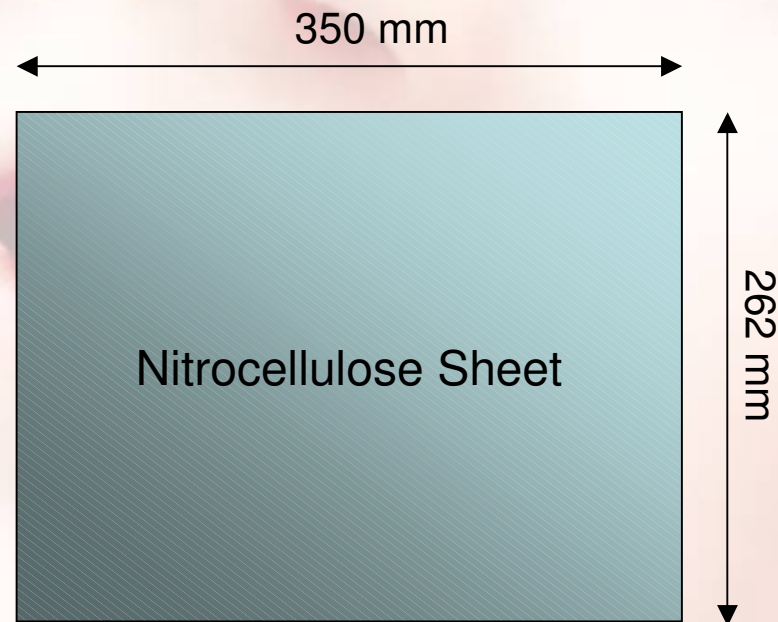


- 50 million tests p.a.
- Approved by doctors

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- A close-up, soft-focus photograph of a baby's face, showing the eyes, nose, and mouth. The baby has light-colored eyes and is looking slightly upwards and to the right. The background is a light, warm tone.
- Current manufacturing process
 - Discontinuous
 - Slow
 - Wasteful

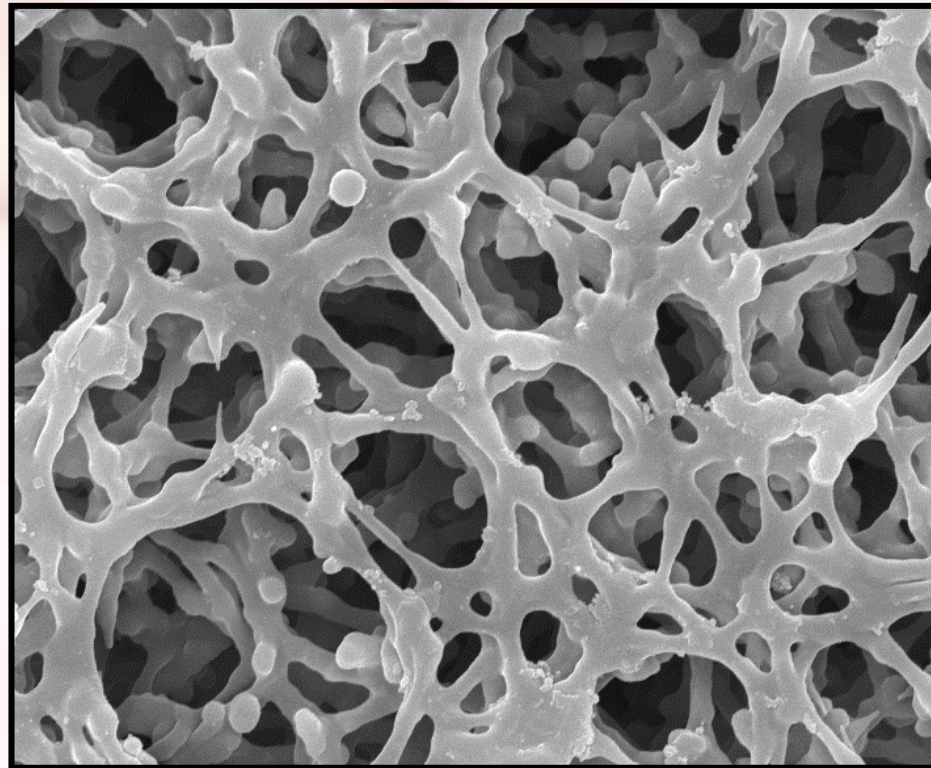
Manufacturing Issues

- Components are made from sheet format



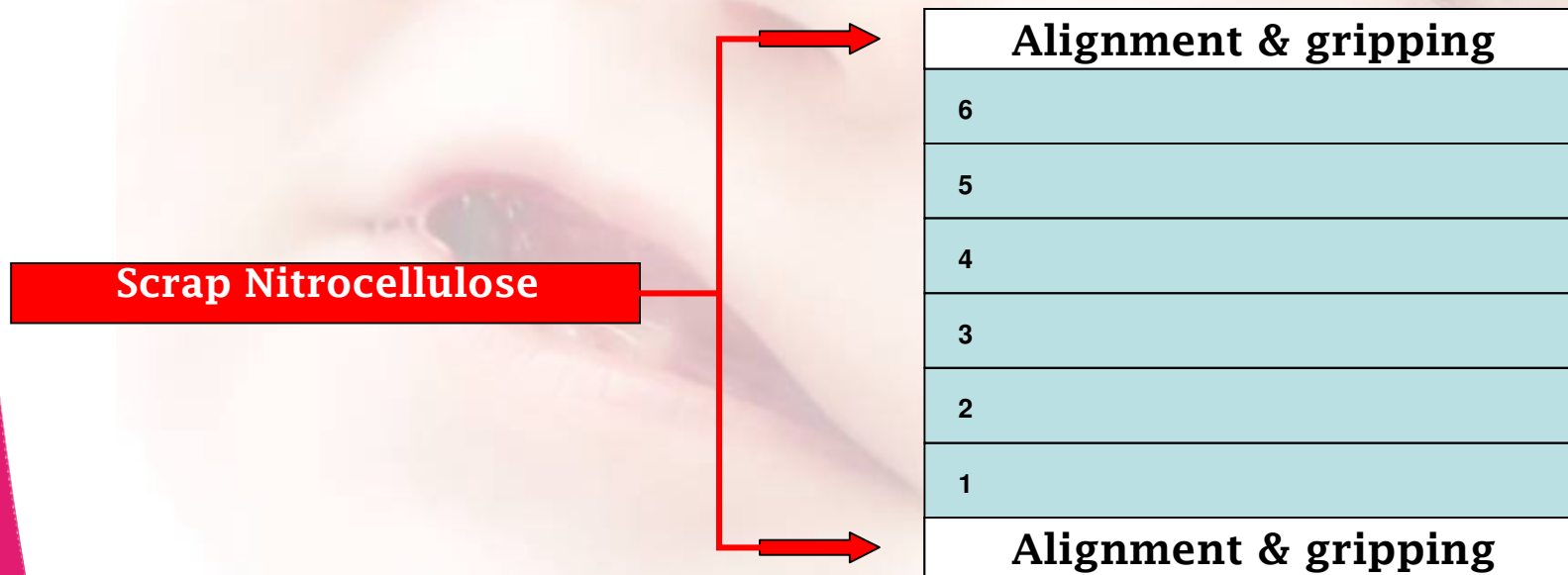
Manufacturing Issues

- Expensive porous material



Manufacturing Issues

- Cut into 6 bands wasting 2 bands (11mm×360mm).



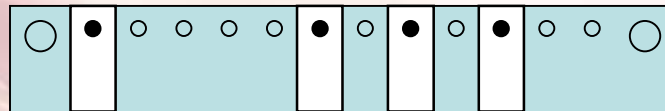
Manufacturing Issues

- Index holes are punched
- Punched nitrocellulose around band edge is scrapped due to gripping

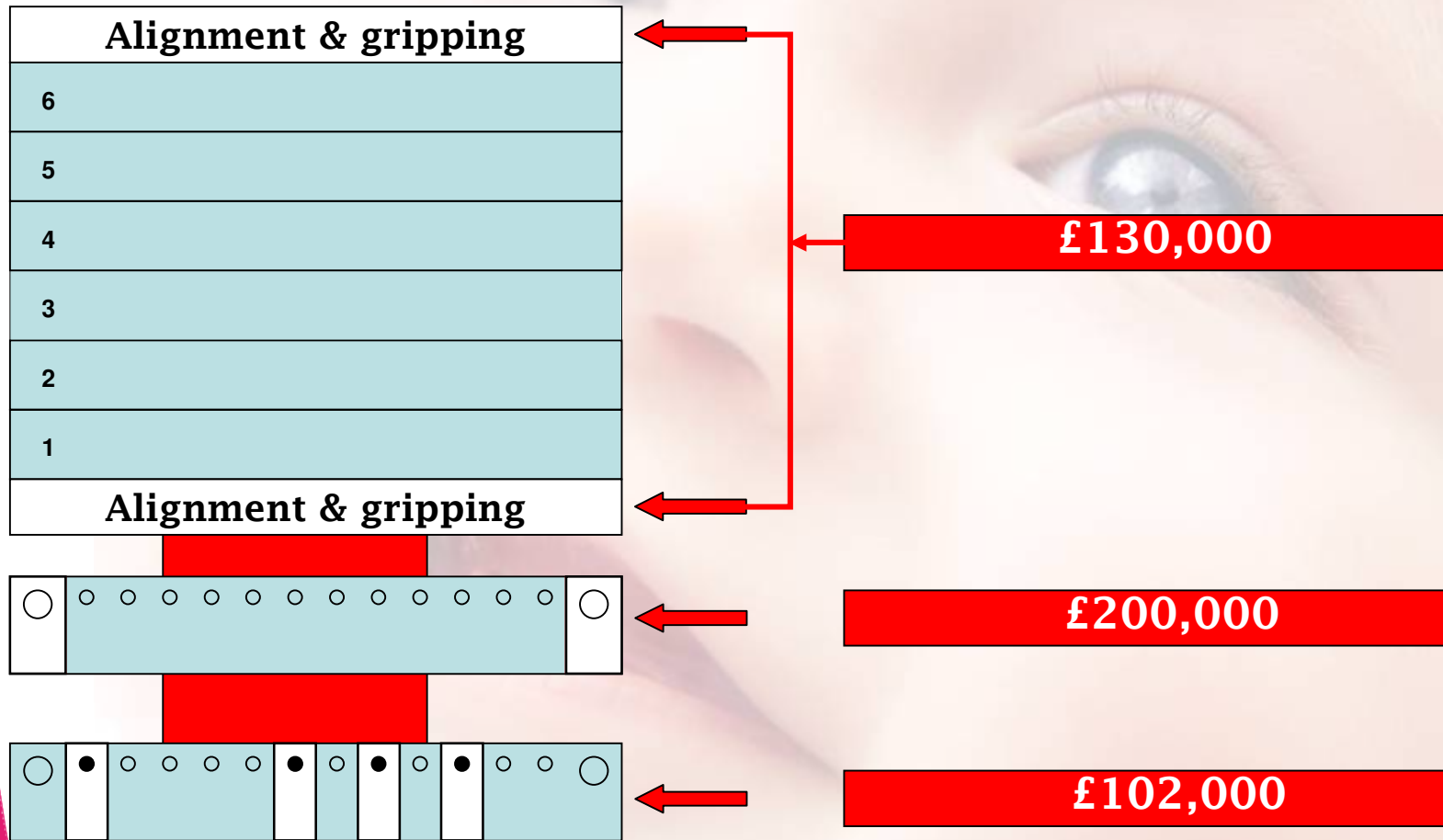


Manufacturing Issues

- Black Dots – Rejects due to poor antibody deposition



Cost/Waste Analysis



Potential Solution

- Reel to Reel
- Not a simple Engineering problem
- Involves Complex immunochemistry

Reel to Reel

- Reel is aligned using guides
 - Saving on alignment
- No mechanical arms for gripping bands
 - Saving on nitrocellulose scrapped due to gripping

Reel to Reel

- Better Deposition technique and improved raw material
 - Reduction in Black Dots

Year in Industry

- Shown Feasibility and produced a report
- Identified cost savings
 - Potentially £430,000 saved per year
- Identified better quality nitrocellulose
- Identified possible issues associated with the project

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