Transiting the Production of Premium Products to Inkjet Web

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Agenda
Transiting the Production of Premium Products to Inkjet Web

- Review of the market requirements
- Overview of technical challenges moving premium products to inkjet web
- Engineering and innovation to the rescue!
- Results

40+ years of inkjet innovation

Reasons for Business Growth

<table>
<thead>
<tr>
<th>Reason</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>We have expanded our service offerings</td>
<td>80%</td>
</tr>
<tr>
<td>We have invested in more efficient equipment</td>
<td>72%</td>
</tr>
<tr>
<td>The demand conditions have improved</td>
<td>31%</td>
</tr>
<tr>
<td>We have invested in software to increase automation</td>
<td>31%</td>
</tr>
<tr>
<td>We have specialized in niche segments/applications</td>
<td>26%</td>
</tr>
<tr>
<td>Changed our pricing strategy</td>
<td>16%</td>
</tr>
<tr>
<td>Other areas</td>
<td>10%</td>
</tr>
<tr>
<td>Don't know</td>
<td>2%</td>
</tr>
</tbody>
</table>

N = 90 Respondents whose business revenue has increased in the past 3 years or is expected to increase in 2017
Source: U.S. Production Software Investment Outlook, Keypoint Intelligence – InfoTrends

Quality Drives Color Inkjet Growth

U.S. & W.E.: 10M+ Color Duty Cycle Segment

- Transaction, Other
- Books
- Direct Mail
- Magazines, Newspapers
- Catalogs
- Brochures

Total CAGR: 12%

Inkjet and Print Applications

High Coverage
- Photo Books
- Brochures
- Magazines
- Direct Mail
- Newspapers
- Books
- Manuals
- Greeting Cards
- Other products:
  - Books & other applications
  - Paper weight
  - Reflective applications
  - Impact of print quality
  - Spotted or embossed

Low Coverage
- Uncoated
- Calendarized
- Light Paper
- Matte
- Gloss

Two New Advanced Technologies

- New inks and exclusive drying technology make it possible print on offset uncoated and coated papers, without priming or pretreatment
  - Extended gamut inks = Increased ink saturation and expanded color gamut
  - Dryers thoroughly set the ink on the paper at high speed, without slowing workflow
  - Customers will realize lower costs and increased application flexibility
**New Extended Gamut Inks**

- No need for priming or post-treatment
- Aqueous based pigment inks
- Increased color gamut (95% ISO Color Space)
- Low water content/high colorant ratio

**New Advanced Dryer Technologies**

- More efficient air knives
- Exit unit with internal chill roll connectors
- Cockling correction technology

**Cockling Correction Technology**

Paper cockling occurs in a variety of printing technologies, even offset presses. The RICOH Pro VC70000 contains new technology to address this:

- Utilizing smaller diameter heat rollers, that are 80% smaller than our previous technology.
- The paper is wrapped around small diameter heat rollers, tension and heat combine to effectively "iron" the paper.
- The "ironing" process is repeated 10 times in each engine, which prevents re-cockling as the drying process completes.

**A Platform for Transitioning the Production of Premium Products to Inkjet Web**

RICOH Pro VC70000

- High Volume Offset to Digital Applications
- MR730 8-color Production Ink
- Additional Fluids
- Up to 500 Ft/Min & 400 ft/min on Offset Coated Papers
- Up to 1200 dpi

Your business.
Our leadership.
A world of possibility.

 imagine. change.