
Market Trends in Chemistry-free Computer to Plate Systems

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Summary

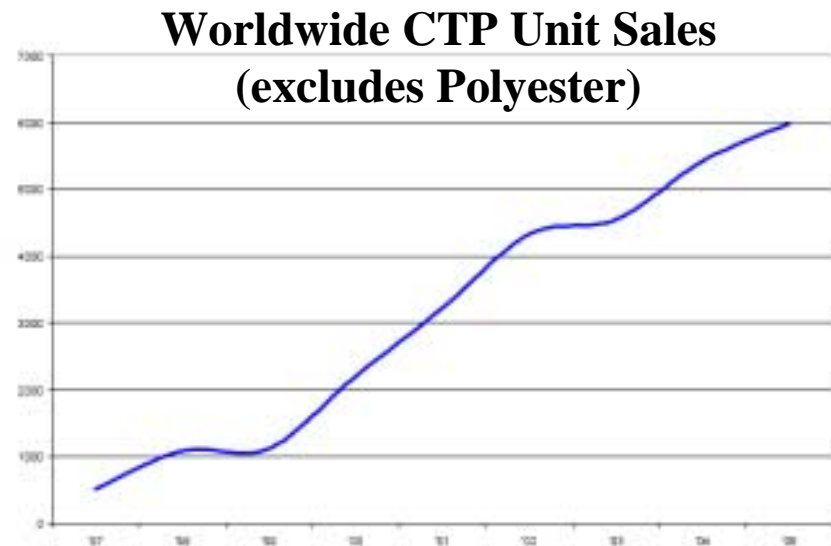
- **Overall CTP adoption rates and trends**
- **Benefits of Chemistry-free CTP**
- **Market preferences**
- **Availability of chemistry-free systems**
- **Questions and Answers**

CTP beginnings

- **Market acceptance of Computer to Plate (CTP) began just over ten years ago**
 - The 1995 Drupa (Druck und Papier) worldwide printing exhibition is seen as the breakthrough year for CTP technology
 - ✓ *CTP Systems demonstrated by 42 different vendors*
- **CTP advantages over traditional (analog) platemaking were easily recognizable**
 - Labor cost reduction
 - Materials cost reduction
 - Higher, more consistent quality
 - Reduced spoilage and remakes

CTP beginnings

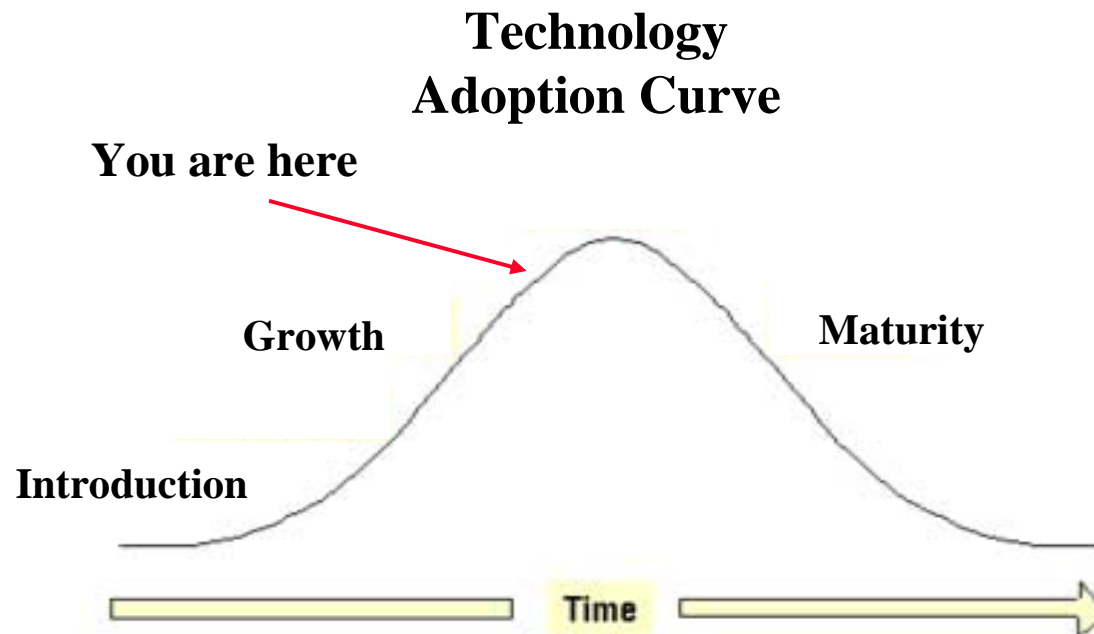
- **Early CTP systems were large and expensive**
 - **Cost of acquisition was a limiting factor in market adoption**
 - ✓ *Large, well funded firms were first to transition*
 - ✓ *Technology adoption was top down*
- **Today, CTP systems are available at price points for all printers**
- **CTP sales are still growing, but mix has changed**
 - **First time buyers**
 - ✓ *Smaller shops*
 - 1-19 employees - majority
 - 20-49 employees - minority
 - In-plant print operations
 - Government / educational
 - **Second time buyers**
 - ✓ *Replacement for older systems*



Source: Vantage Strategic Marketing

CTP maturity

- **CTP is approaching maturity in the US market**
 - Estimated 28,000 printing establishments
 - Estimated 10,000 (metal) CTP installations (Vantage)
 - Estimated 6,600 (polyester) CTP installations (State Street)



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Chemistry-free beginnings

- **Chemistry-free CTP**

- **Presstek Anthem plate system introduced in 2000**
 - ✓ *First chemistry-free CTP platemaking system*
 - No developing chemistry to buy, maintain or dispose
 - Simple water rinse required after imaging
 - Waste water is drain disposable
 - Subject to local regulations
- **Presstek Freedom introduced 2004**
 - ✓ *Chemistry-free plate designed for smaller shop*
- **Presstek Anthem Pro introduced 2006**
 - ✓ *Second generation, improved Anthem plate*
- **Presstek Aurora**
 - ✓ *Scheduled release in 2007*

Chemistry-free advantages

- **Chemistry-free CTP advantages**
 - **Further** labor cost reduction
 - **Additional** materials cost reduction
 - **Even** higher, more consistent quality
 - **Incremental** reduction in spoilage and remakes
 - **Smaller environmental footprint**
- **Reasons to change to chemistry-free**
 - ✓ *Chemically developed CTP plates generally have higher chemical consumption*
 - Analog chemistry (annualized) cost ~10%
 - CTP chemistry (annualized) cost @ 20% - 30%
 - Additional labor to manage / change chemistry
 - Increased disposal cost
 - ✓ *Chemistry-free is simpler – has fewer variables*
 - Fewer process variable = more consistent quality
 - ✓ *No cost penalty*

Market awareness

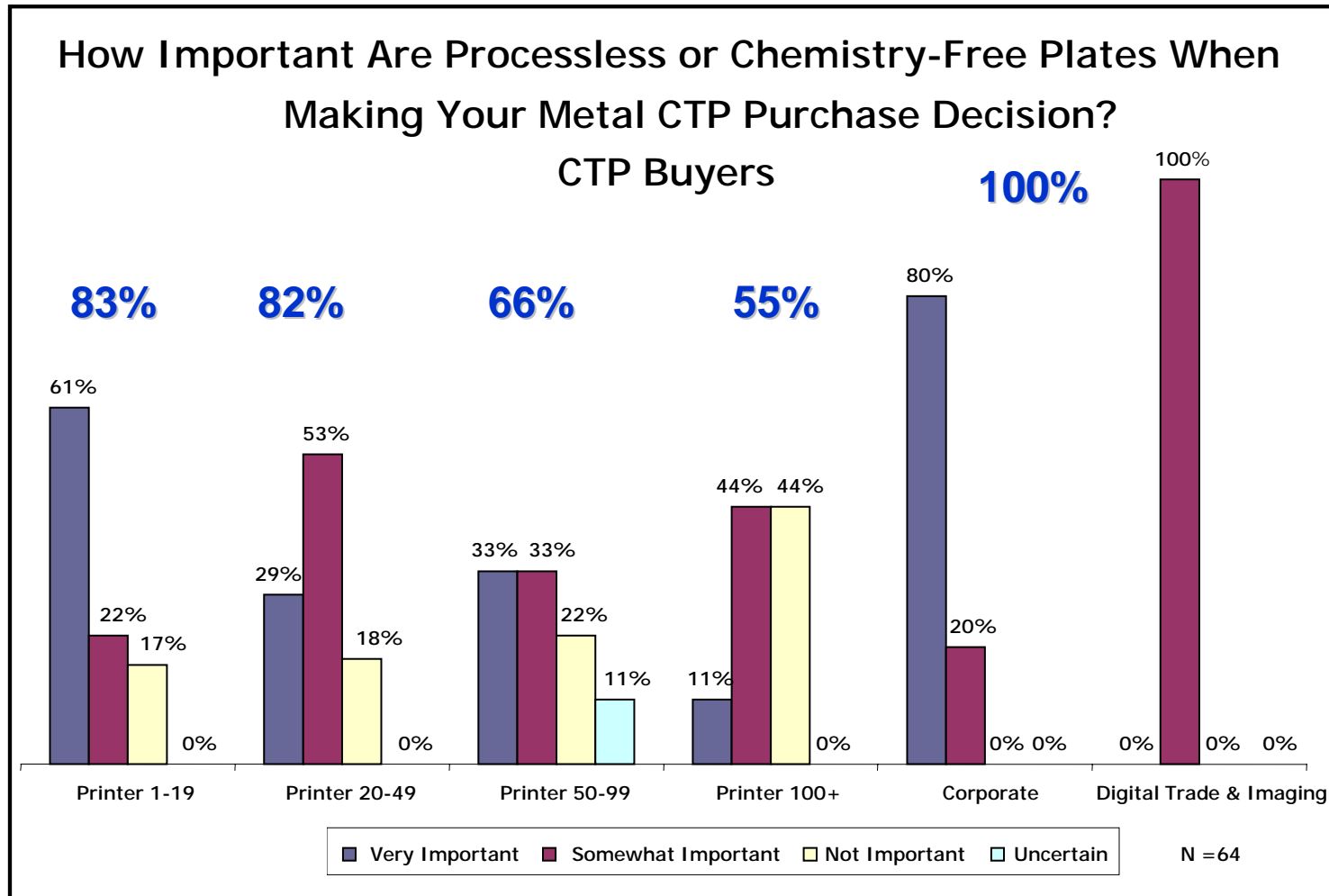
- **2003 study from J Zarwan Partners**
 - Captured the cost impacts of developing chemistry in CTP systems
 - Proved that chemical based CTP plates used more developing chemistry than the analog systems they replaced
 - Showed that printers generally did a poor job of tracking these costs
 - Raised awareness about advantages of chemistry-free plates

CTP Plate Making:
Understanding
the Real
Costs

J Zarwan Partners

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The market speaks....



Suppliers listen...

- **In addition to Presstek, the top three plate manufacturers have added chemistry-free plate products to their portfolio**
- **2005**
 - **Agfa Azura**
 - ✓ *Thermal CTP imaging*
 - ✓ *Gum / detergent solution used to rinse plates after imaging*
- **2006**
 - **Kodak Thermal Direct**
 - ✓ *Thermal CTP imaging*
 - ✓ *Plates are developed in the printing press*
 - Normal press fountain solution develops the plate
 - Waste material is captured in press fountain circulator and inking system
 - **Fuji Brillia Pro T**
 - ✓ *Similar to Kodak*

Conclusion

- **Chemistry-free CTP systems offer an attractive alternative to chemistry-based CTP systems**
- **Improved value proposition will extend the technology lifecycle for CTP**
- **Market recognition of Chemistry-free benefits has begun**
- **Vendors now transitioning new products to meet market requirements**
- **Printers benefit from cost, labor and material savings**
- **The printing industry benefits from cleaner, more sustainable processes**

Chemistry-free CTP

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