Overview of South American Corrugated Market

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Rely on us.

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Introduction

- Lucas Woodyatt

  Mechanic Engineer

  Flint Group Flexographic Products (2011)

  Sales Manager for Argentina, Uruguay, Chile and Peru

  Eastman Kodak Company (2010-2011)

  Packaging Marketing Manager South Cone

  DuPont Imaging Technologies (2004-2010)

  Sales and Technical Rep for Argentina

  Intergrafica Print & Pack (1998-2004)

  Flexo Sales Rep Brazil (Printing and Pre-press Equipment)

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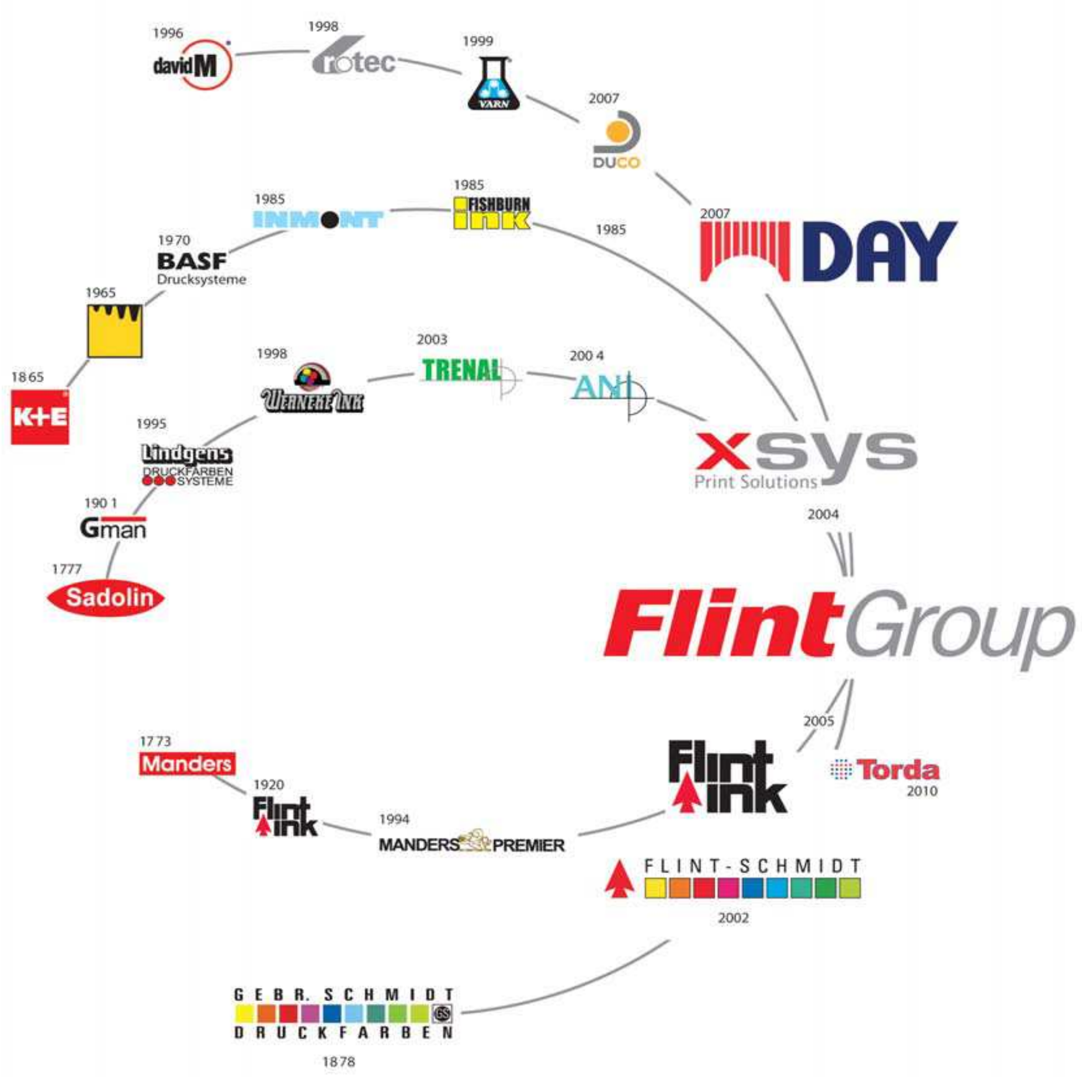
Flint Group – Powerful Roots



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Flint Group overview

- 2011 Sales: **€2.2 billion**(US$ 3.0 billion)
- No. of employees: **6.900**
- **>170 company sites** in over 40 countries
- **Global network** of partners and distributors

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Flint Group –Locations worldwide

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South America – Economic growth

Country	2012 Growth (%)	Projected 2013 Growth (%)
Argentina	2,4	2,0
Brazil	1,8	3,0
Chile	5,3	4,5
Colombia	4,2	5,0
Peru	6,2	6,0
Uruguay	3,5	4,0
South America	**2,8**	**3,8**

Source: Banco Mundial (BM), Comisión para America Latina y Caribe (CEPAL), Banco Interamericano de desarrollo (BID), International Monetary Fund(IMF)

South America – Corrugated expectations

- Growth of more than 4% on the SA corrugated market is expected in 2013
- Box identification has increased
- Grocery retail will grow substantially in emerging markets
- Private label development

Almost everything ships in a corrugated box

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South America – Corrugated Market

- Top growth areas:
  - Process food industry
  - Fresh fruit and vegetable packaging
  - Electronic Industry
  - Consumer Durables

South America – Corrugated market evolution

		2000	2008	2012
Brown Box	No printing	67%	54%	40%
Standard Graphics	Up to 3 colors	25%	35%	42%
High Graphics	4 to 6 colors	8%	11%	18%

Source: LA Corrugated Chamber

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South America – Corrugated Flexographic Plate Market

Country	Corrugated Market Size (SQFT)
Argentina	150k
Brazil	550k
Chile	250k
Colombia	100k
Peru	65k
Uruguay	15k
Total	**113k**

Source: Nosis (Import figures by country)

More than 98% of South American corrugated plate market is done by Trade-shops

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South America – Corrugated Flexographic Plate Market

- Market Thickness:

Thickness	Participation
635mm (0.250 inch)	55%
284mm (0.112 inch)	30%
394mm (0.155inch)	15%

Source: Nosis (Import figures by country)

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South America – Corrugated Flexographic Plate Market

- Market Profile
  - 60% plate volume concentrated in aprox. 20 trade-shops
    - High migration to digital with new CTP investments
    - Migrating from standard graphic design software to flexo workflows
    - In line processing equipment
    - In house solvent recovery

  - 40% plate volume in more than 80 trade-shops
    - Analog plates
    - Using standard graphic design software
    - Rotary processing equipments
    - Third party solvent recovery

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South America – Corrugated Flexographic Plate Market

- Trends
  - Analog to Digital
  - Migration to thinner plates
  - Higher usage of corrugated printing foam
  - FTD technologies

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Digital Plates for Corrugated

- In 2013 the South American corrugated market will experience the higher migration to digital plates so far:

2012 Digital Plates volume(SQM)	Expected 2013 Digital Plates volume (SQM)
19K	33k

Source: Nosis (2012 Import figures by country)
2013 figures based on new CTP installations

- Expected Increase of aprox 75% from 2012 to 2013 in volume

Digital Plates for Corrugated

- In 2013 we expect digital plates to reach 30% of total corrugated market
- Most common size is 42x60 inches
- 50x80 inches also used
- Productivity and quality are the main drive for going digital
- Image setters maintenance is an increasing problem
- Higher film costs

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Migration to 284 plates

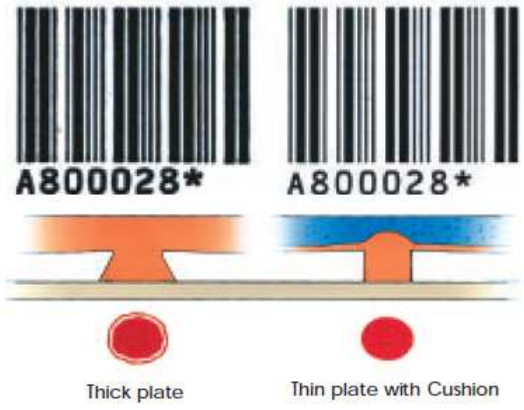
Thikness	2005	2012
635 (0.250)	75%	55%
394 (0.155)	15%	15%
284 (0.112)	10%	30%

Source: Nosis (Import figures by country)

Main drives for migration to thinner plates:

- Productivity - Lower Exposure times, Less chemical usage, Easier handling
- Cost - Higher productivity drives costs down
- Quality - Higher lineature, better quality
- Environmental impact

Higher usage of Corrugated foam



- Higher productivity due thinner plate usage
- Higher quality
- Lower dot gain
- Elimination of board crush
- Improved handling
- Increase of printing speed due bounce elimination

Migration to thinner plates with Corrugated foam

- Most common foam usage in South America is 3.8 mm / 0.150 inch foam due migration from 0.250 to 0.112 inch plate

- During transition period foam is used on the back of each job

- After migrating all jobs to 0.112 inch foam is used to cover the print cylinder

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Flat Top Dot Technologies for Corrugated

- 2 installations of NExT units for Corrugated in SA

- More to come in 2013

- High graphic flexo post-print challenging offset

NExT unit by Flint Group

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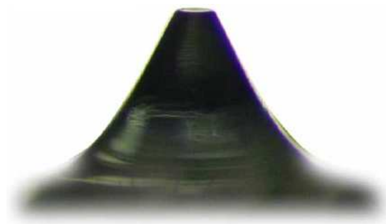
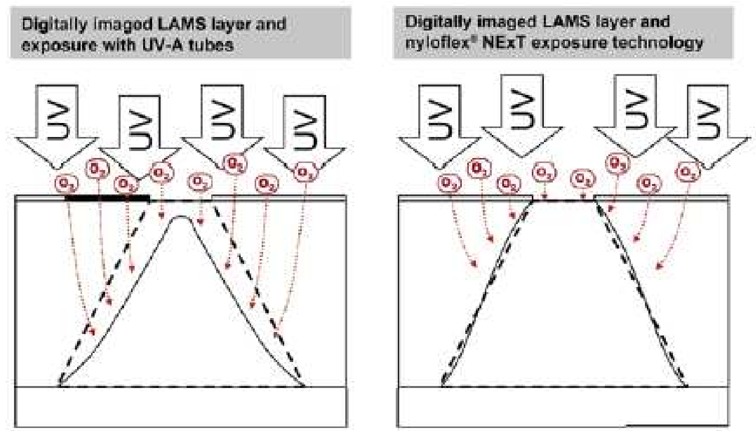
Flat Top Dot Technologies

Benefits of FTD:



- Surface screening – Higher density
- Reduce fluting
- Longer print runs
- Reduced Dot Gain



THANK YOU

MUCHAS GRACIAS

OBRIGADO

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