



New Electron Beam  
Converting Equipment  
to Enhance Packaging Materials

# Current Situation

- Packaging Buyers (CPG's) → Differentiation
  - Off the shelf and into your cart
- Packaging Printers → Squeezed
  - New capabilities
  - Capital constraints
  - Price pressure

# Why Electron Beam?

- Packaging Buyers → Security
  - No photoinitiators
  - Low risk of migration
  - Certain curing

# Why Electron Beam?

- Packaging Printers → Process Improvements
  - High speeds
  - Wide webs
  - Low heating (thin films)



# 4 in 1 System

Coating

Lamination

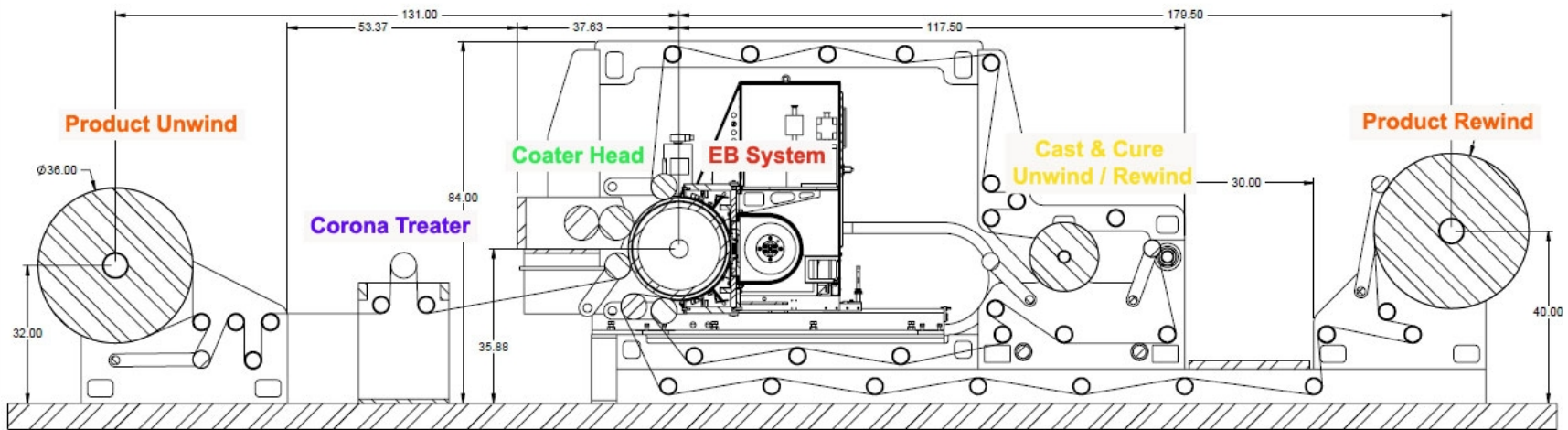
Cold Foil Transfer

Cast & Cure™

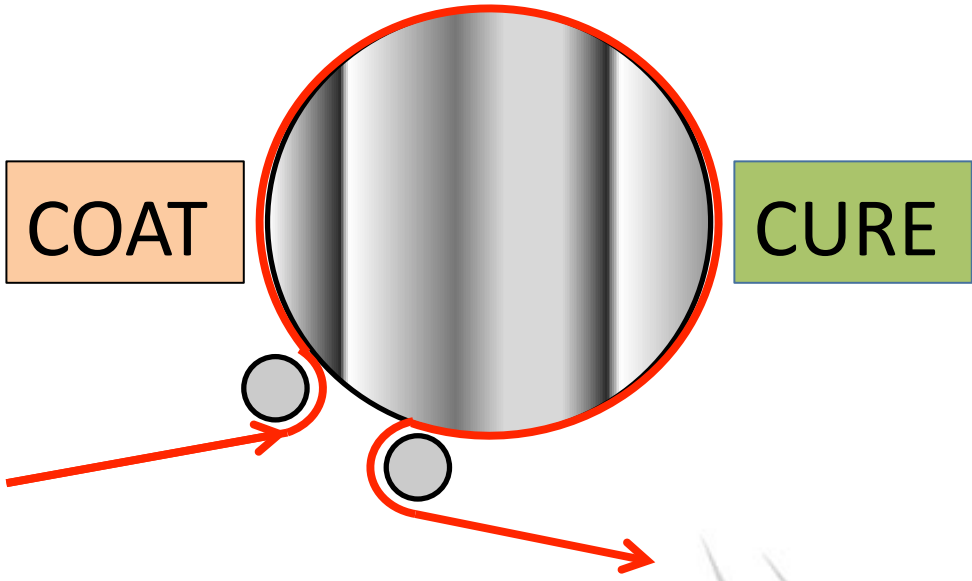
Integrated Shield Roll

Electron Beam Benefits

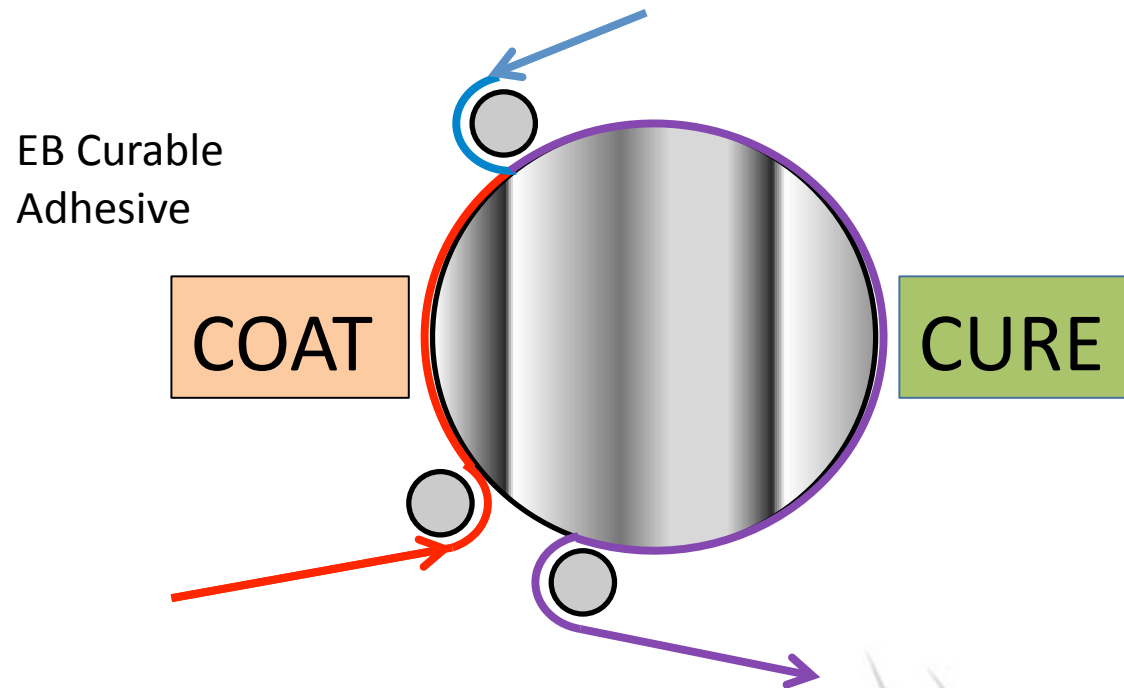
# 4 in 1 System



# 4 in 1 System Coating

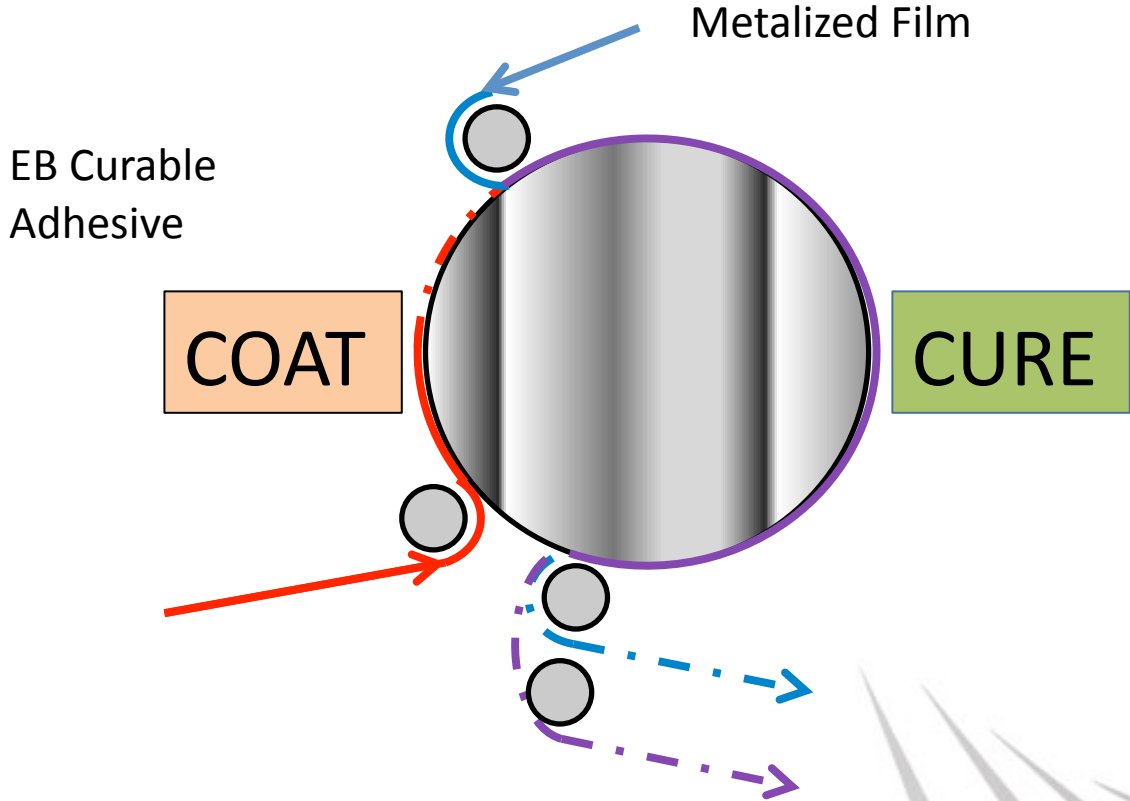


# 4 in 1 System Lamination

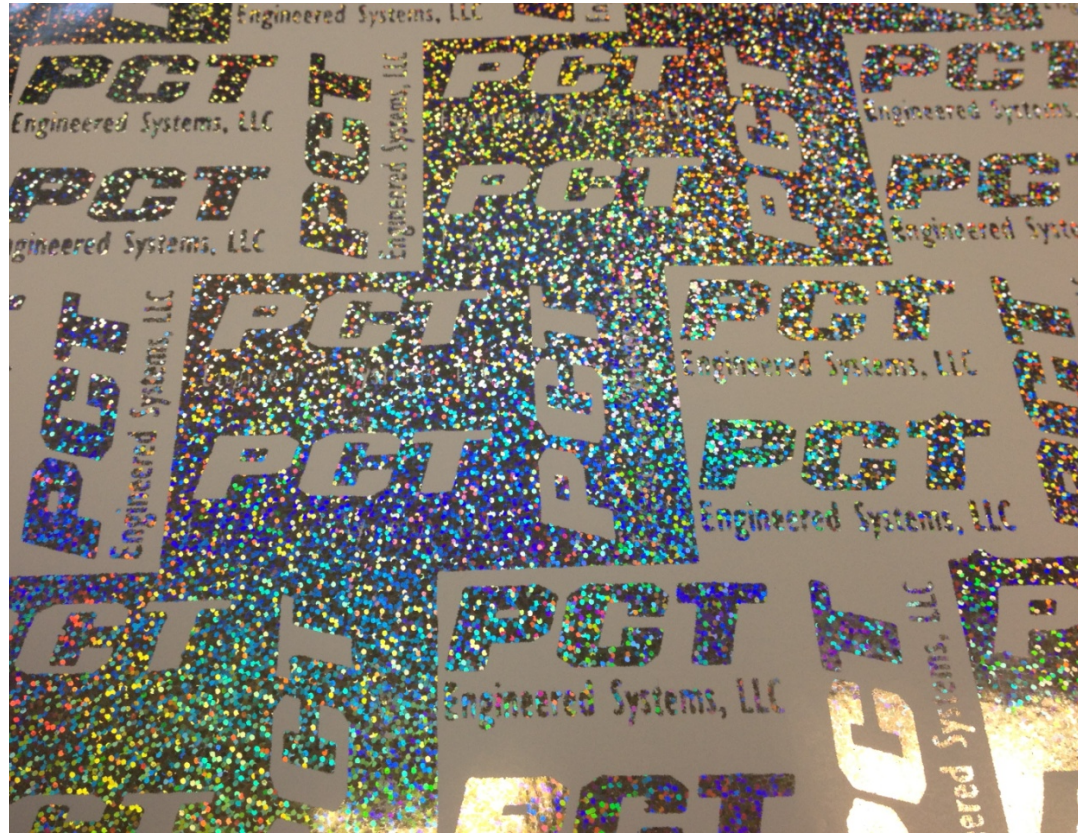




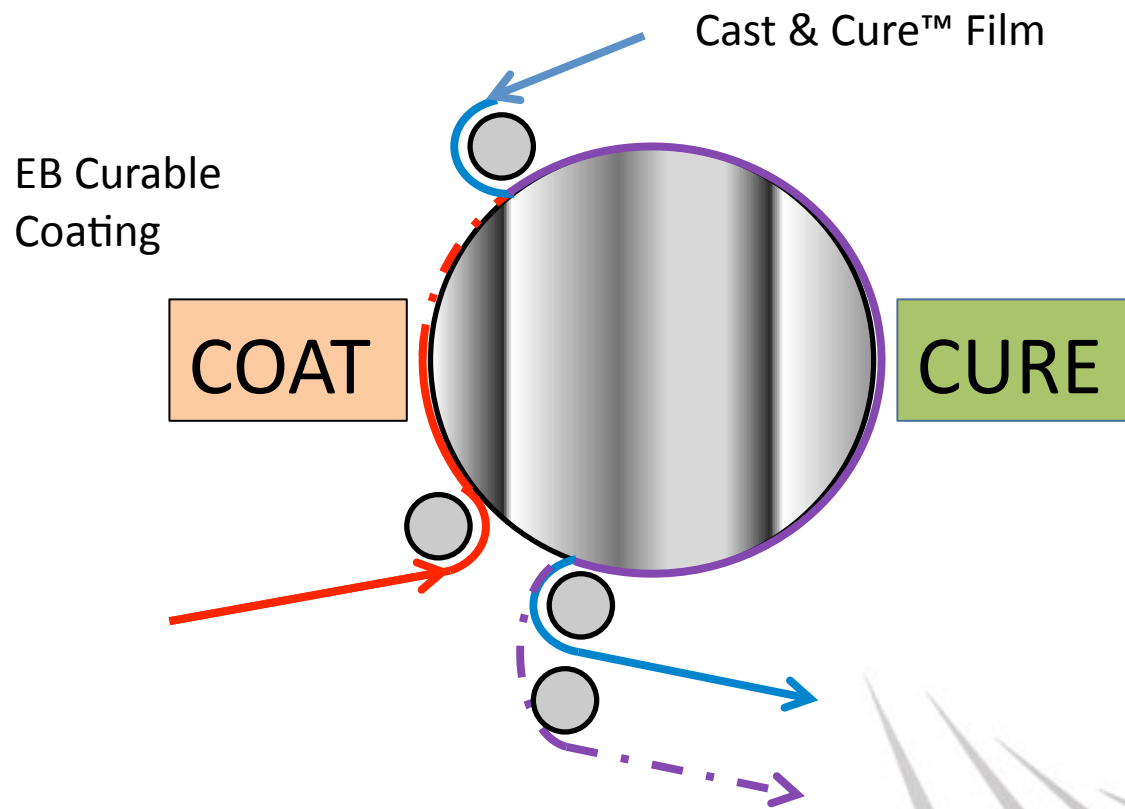
# 4 in 1 System Cold Foil Transfer



# Cold Foil Transfer Example



# 4 in 1 System Cast & Cure™



# Cast & Cure™

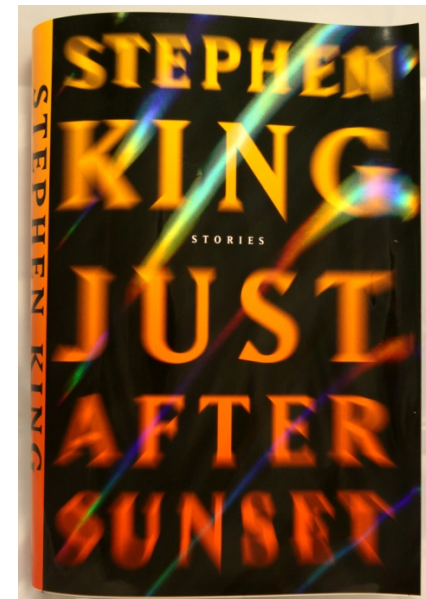
- Patent pending decorative coating process that integrates “casting” and “curing”
  - Consistent high quality finish
  - Ultra high gloss, matte and holographic
  - Variety of substrates
- Can provide anti-counterfeiting features

# Cast & Cure™

- Environmentally friendly
  - No undesirable and harmful VOC's
  - Can make packages more recyclable by eliminating the laminated, metalized films used in traditional holographic processes
  - Film is reused multiple times
- This is all achieved at a fraction of traditional costs

# Cast & Cure™

- Examples



# Summary

- An innovative 4 in 1 converting line using EB technology is now available.
- The four modes of operation available are:
  - Coating
  - Laminating
  - Cold Foil Transfer
  - Cast & Cure™

# Summary

- The product enhancements from the 4 in 1 line are:
  - Environmentally attractive
  - Cost effective
  - Significant differentiation





Thank You

Karl E. Swanson

Director, Sales & Marketing – BroadBeam

PCT Engineered Systems