

The Importance of Machine Alignment to the Future of Converting

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April 26, 2017



Presentation Contents

- Introduction
- Industry Challenges
- Machine alignment overview
- Alignment best practices
- The benefits

Industry Challenges

- Highly competitive marketplace
- Quality product and production levels
- Older equipment – new substrates
- Employee training and engagement

Machine Alignment Overview

- What is alignment?
- Why is alignment so important to you today
- Why will it be just as – if not more – important in the future?

Causes of Misalignment

- Improper alignment at initial installation
- Equipment modifications and rebuilds
- Breakdowns and emergency repairs
- Regular maintenance
- Vibration and settling
- Wear and corrosion

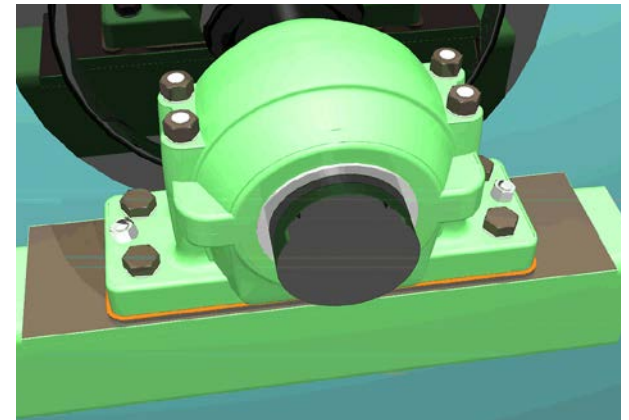
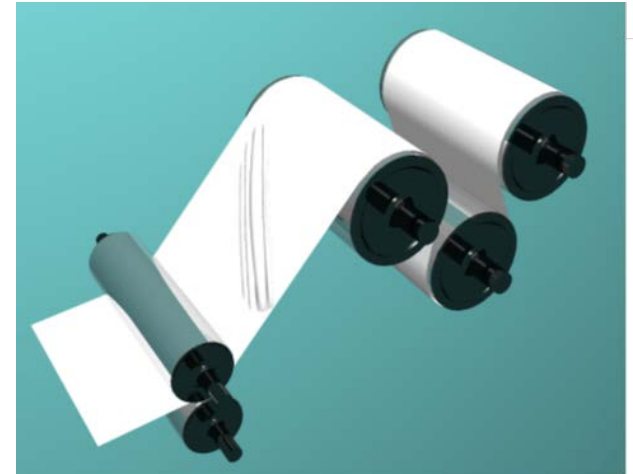
Problems Associated with Misalignment

Elevated scrap rates

- *Wrinkling, web breaks, inconsistent coating profiles and more!*

Equipment issues

- *Bearing and coupling wear and failures, excessive vibration, increased energy consumption*



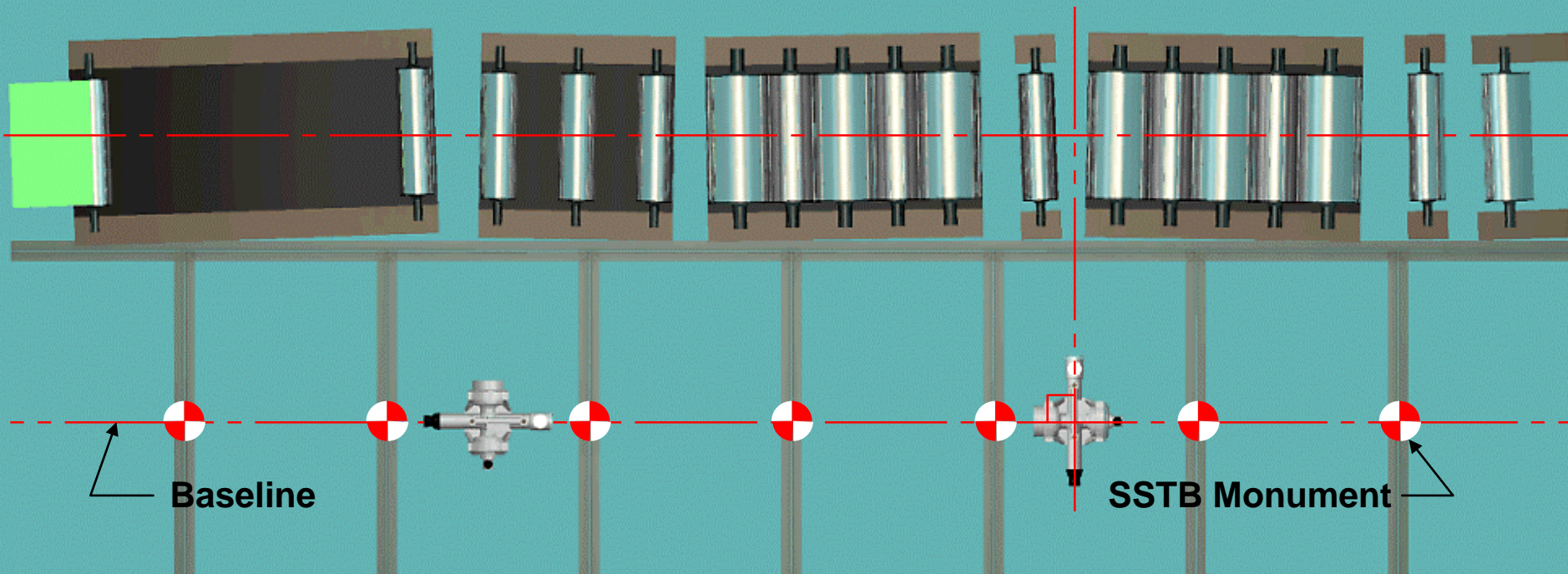
Machine Alignment Best Practices

A continuous web fed machine must have:

- All machine modules on a common centerline
 - From unwind to rewind
- All modules, idler rolls & ovens should be:
 - Level to earth
 - Perpendicular/square to machine centerline
- All driven components & drive assemblies should be aligned relative to machine speeds

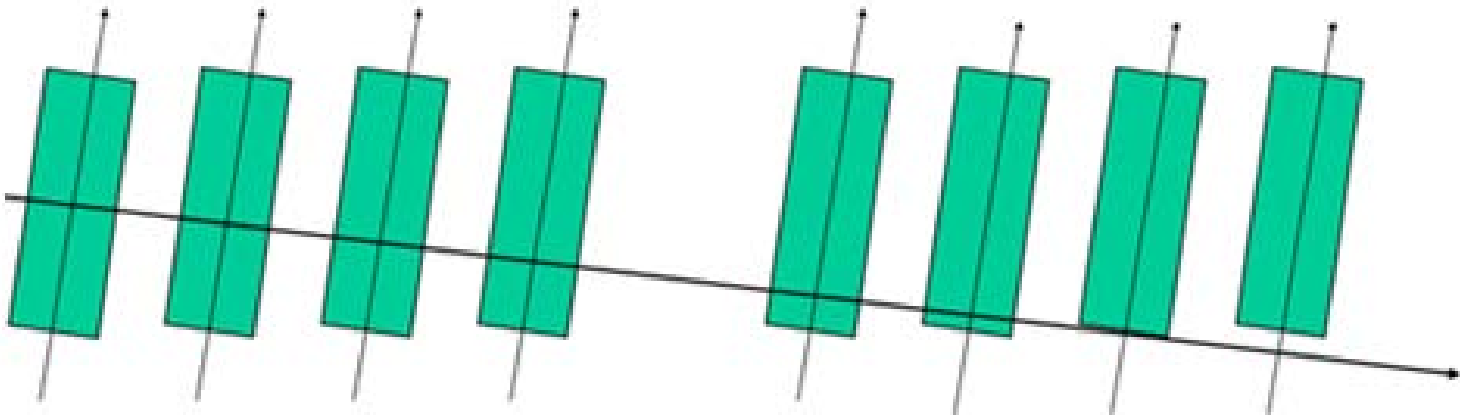
Modules and rolls should be aligned to a minimum tolerance of ± 0.001 " /ft of effective roll surface

Installing Offset Machine Centerlines (Baselines)



No Centerline?

Costly issues can occur!



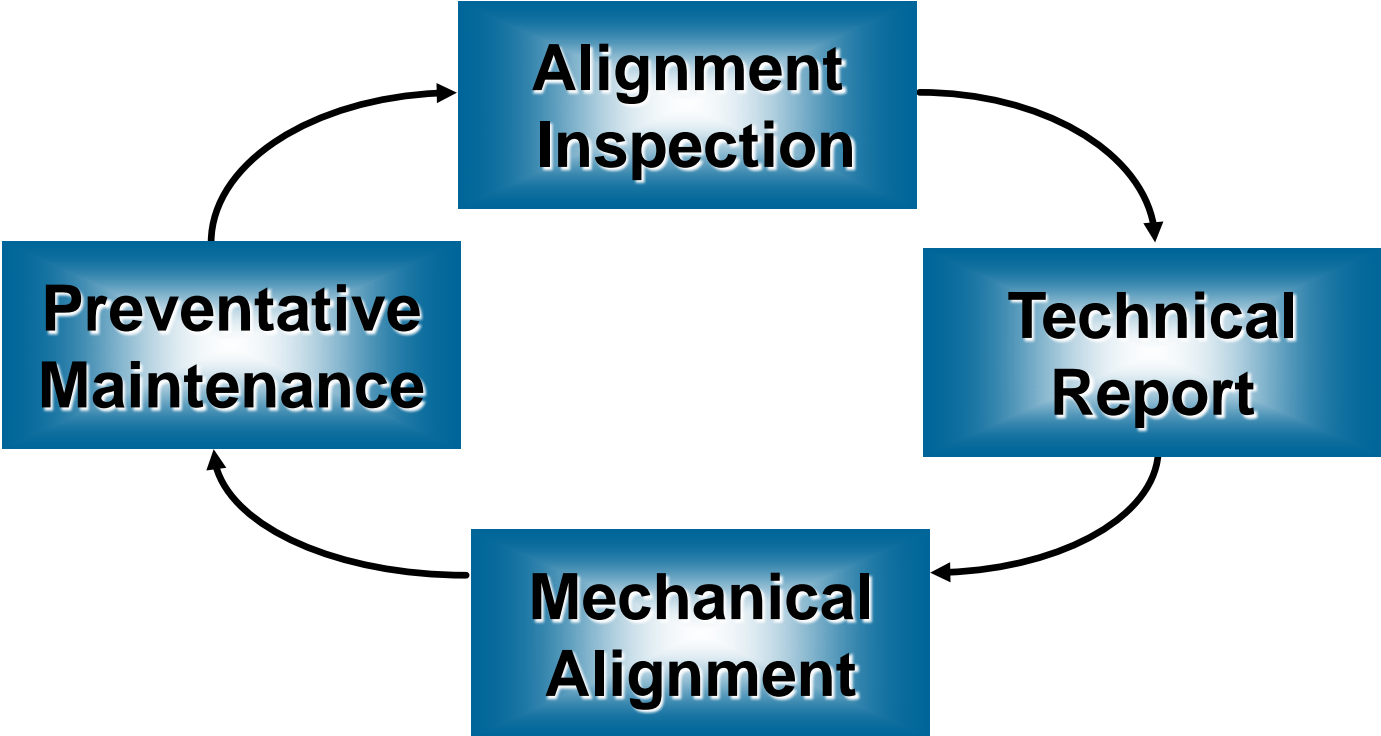
Case Study

Tissue converter avoids new embosser purchase with roll alignment

- They began experiencing wrinkling and baggy edges in paper towel line
- Product was tracking tight to one side and bagging severely from the embosser to winder
- Mill convinced embosser was the issue
- Using a laser tracker, an OASIS metrology engineer found significant misalignment in many of the idler rolls
- OASIS then aligned and adjusted all idler rolls
- Since alignment project, wrinkles and baggy edges have been eliminated

Avoided the cost of purchasing and installing new embosser!

Best Practices Takeaway



Alignment Technologies

- Optical instruments
- 3D metrology tools
 - Laser trackers
 - T-Probe
- Others



Alignment Technologies

➤ Laser Trackers

- Future of precision measurement!
- Portable
- Highly accurate 6DoF measurements
- Dependable in harsh environments
- T-Probe allows for precise measurements in hard to reach places



The OASIS logo, featuring a red crosshair symbol to the left of the word "OASIS" in a bold, red, sans-serif font.

The Future is in Your Hands

The benefits of the choosing the right alignment partner for YOUR needs

- Waste reduction by 5%, 10% or more
- Uptime or production increased by 1% or 2% or more!
- Energy to run the machine reduced by 1% to 5%
- Maintenance costs reduced by 1% to 5%

**Thank you for
attending!**



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