



Building Leadership Excellence



Improving and Maintaining High Paper Machine Efficiency

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Session Moderator

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RETHINK PAPER:
Lean and Green

What is paper machine efficiency?

- Several industry standards exist globally
 - Be careful when comparing numbers
 - Determine if your internal company method is a modification from a standard
- Most methods use the product of time and material efficiencies called overall efficiency
 - Time efficiency also called uptime or availability
 - Material efficiency also called first quality or percent salable
- Differences in methods are usually from
 - How available time is calculated
 - How production is defined
 - And if a speed factor is used



Efficiency Standards

- The two most common methods in North America are:
 - TAPPI Technical Information Paper (TIP) 0404-47, Paper Machine Performance Guidelines
 - Zellcheming Production Indices for Paper Production (Das Papier 2005) which is a joint effort between PI and Zellcheming
- Newsprint producers that are members of PPPC (formerly CPPA) use an index called operating efficiency
 - It is production per operating day divided by possible production per day



Efficiency Standards

- SSG (Swedish standards group) is similar to TAPPI and Zellcheming but includes an adjustment for speed
- Metso Paper follows the Zellcheming method with minor differences
- Voith Paper follows Zellcheming method
- VDI (German standards group) method defines time efficiency only



Improving Efficiency

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Tips from our panel of experts!



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