



METRIX™ Titan Technology

Achieving Strength and Productivity

NALCO  **Water**
An Ecolab Company

METRIX Titan Technology

Nalco Water's METRIX Titan

technology is a novel program that delivers enhanced productivity, dewatering and strength development for the paper industry.

The program is based on the use of a multi-functional reactive polymer in combination with Nalco Water's advanced retention and drainage programs.

Maximizing strength and sheet quality while improving machine overall efficiency and cost is critical for paper manufacturers to maintain market competitiveness. Challenges for increasing strength could include higher quality/cost fiber, slower machine speeds with increased refining, and higher additions of starch, wet strength and other additives. METRIX Titan allows the papermaker to optimize the process and end product quality.

DRAINAGE

- Productivity
- Quality – Formation
- Grade Development

PRESSING & DRYING

- On Machine Efficiency
- Energy Savings

DEWATERING

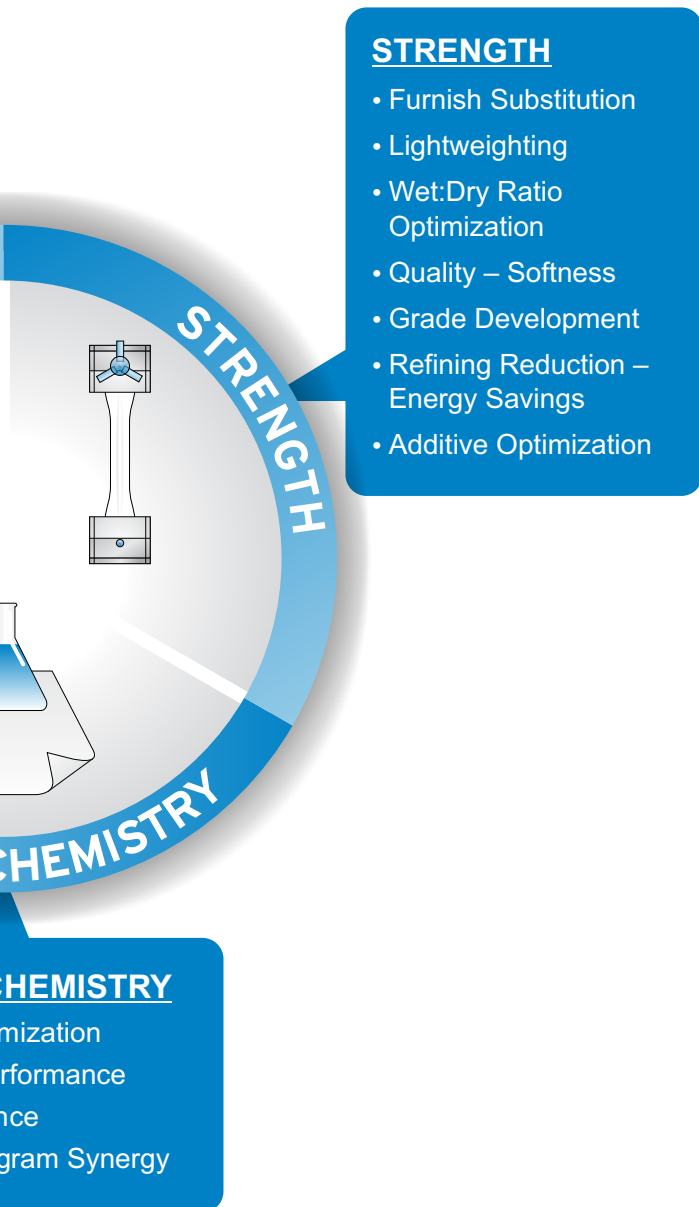


WET END C

WET END C

- Additive Opti
- Retention Pe
- Charge Balan
- Strength Prog





Customer Benefits:

A METRIX Titan program is designed to meet the following customer objectives:

- ▲ Increase Tensile and Bond Strength
- ▲ Increase wet/dry tensile ratio
- ▲ Optimize wet end chemistry
- ▲ Enhance sheet dewatering for improved quality and productivity
- ▲ Allow for the use of less expensive furnish
- ▲ Allow for less refining for improved quality and energy savings
- ▲ Minimize variations in moisture profiles



Case History



Tissue & Towel Mill saves \$850K since converting to new METRIX Titan Technology through strength & chemistry synergy gains.

Mill Information:

- North American tissue & towel mill producing towel grades
- 200 TPD
- Traditional strength program using METRIX strength aid, CMC & wet strength resin

Value Delivered:

- New program utilizing METRIX Titan technology
- Improved charge balance - dry strength replacement, wet strength & CMC optimization
- Energy reduction - 48% refining reduction, softness improvement
- Furnish optimization - 10% fiber substitution

Case History



METRIX Titan technology provides quality and productivity gains in uncoated freesheet Mill enabling \$950,000 profitability gains.

Mill Information:

- North American uncoated free sheet producing premium offset
- 450 TPD
- Traditional strength program using METRIX strength aid

Value Delivered:

- New program utilizing METRIX Titan technology
- Strength chemistry reduction at equal performance
- 5-10% formation improvement
- 15% strength improvement in Tensile & Bond
- Improved drainage, pressing & drying - 3.2% productivity improvement

Nalco Water, an Ecolab Company

North America: *Headquarters* – 1601 West Diehl Road • Naperville, Illinois 60563 • USA
Nalco Champion – 7705 Highway 90-A • Sugar Land, Texas 77478 • USA

Europe: Richtstrasse 7 • 8304 Wallisellen • Switzerland

Asia Pacific: 2 International Business Park • #02-20 The Strategy Tower 2 • Singapore 609930

Latin America: Av. das Nações Unidas 17.891 • 6º andar • São Paulo • SP • Brazil • CEP 04795-100

nalco.ecolab.com

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