A TAD manufacturer producing both premium tissue and towel grades, was satisfied with productivity and quality on their towel grades but was looking for a dramatic improvement in output on bath grades. The incumbent coating package struggled to provide consistent adhesion, sheet stability and machine efficiency.

The machine specifically struggled with grade changes from towel to bath, due to the transitions commonly plagued with excessive blade changes and sheet breaks. Bath runs were frequently abandoned due to the inability to get on grade even when the machine was able to produce bath, production rates and sheet quality - primarily softness. However, they still fell below their desired targets.

Nalco Water’s solution was to replace the incumbent’s coating program with the Navigator coating program. This program leverages a dual adhesive approach, the latest patented modifier technology, MAP™ and PVOH. The Navigator adhesives proprietary construction provides a more re-wettable hydrophilic film that allows for a softer, more adhesive coating. The crosslinking nature allows the coating to establish durability to stand up well to typical stresses put on the coating, like blade changes. The dual adhesive approach allowed the sales team and technical experts to fine tune the balance between re-wettability and durability on each grade, providing optimal performance on both bath and towel.
RESULTS

Nalco Water’s solutions delivered significant production gains to both their bath and towel runs. Speeds increased 200 fpm – four percent – while uptimes increased five plus percent as a function of reduced breaks and extended blade life.

The combination of higher speed and reduced downtime translated to a 10+ percent increase in productivity on the machine. In addition to increased tonnage output, the customer was able to address their softness shortcomings. The above results were accomplished with the same Yankee coating add-on and a 30 percent reduction in TAD fabric release.

CONCLUSION

Nalco Water’s Navigator technology provided this tissue maker with best-in-class Yankee coating tools, affording both performance and flexibility. Being able to achieve optimal performance across a varied grade structure, allowed the mill to increase productivity and quality; two benefits which rarely go hand in hand. The productivity gains and other savings resulted in an incremental profit gain potential of $2MM/yr.