

The industry calls them
STANDARDS
We call them
SOLUTIONS



Many Componex innovations are now considered the standards of the roll manufacturing industry. Technologies like our WINlock™ Bore. 3D Dynamic Balancing. WINertia™ Bearing. And WINertia™ Deflection Calculator. We're proud of the recognition. But the greater satisfaction comes from having solved customer problems. Our goal is always to improve the performance of aluminum idler rolls so that customers can operate more productively and profitably. We live for the challenges you present to us. Rather than being content with setting industry standards, we're looking for the next breakthrough solutions.

See the reverse side of this page for more in-depth information about Componex solutions.

For a fast, easy deflection analysis and price quote, go to www.componex.net.

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COMPONEX
Innovation end to end.

TECH NOTES

from Darcy



Darcy Perona, Operations Manager

SETTING THE STANDARDS

The Componex approach to solving problems

This issue of Tech Notes features Componex innovations in depth. They all come from the same source: our dedication to solving some of the most common problems with aluminum idler rolls in the converting industry. I look forward to hearing your feedback so that we can make Tech Notes a continuing discussion of topics that interest you.

WINertia™ Tubing

WINertia™ tubing was really the invention that started it all at Componex. It was developed to change the way idlers were made. First of all, the tubing simplified the manufacturing process by eliminating the need for headers. Secondly, it allowed us to standardize on two outer bearing diameters, 2.0472 and 3.1496. Finally, WINertia™ tubing solved a longstanding problem in the industry—balancing. It simplified the process by incorporating built-in balancing lugs along the length of the tubing, to which standard rods can be added.

WINlock™ Bore and WINertia™ Bearings

Free-spin bearings have been used for years in the converting industry. They were filled with oil and utilized shields instead of seals. Although they lived up to their name and were very free spinning, their downside was low bearing life. Lack of seals allowed the oil to drain out or evaporate, leaving the balls and raceways exposed to heat and dirt. The shields alone were not able to keep contaminants from entering the housing. Bearings rusted and seized up after only a short period of time.

Since bearings are one of the most critical components in an idler, Componex began researching different lubricants. Selecting a high-tech synthetic lubricant enabled Componex to supply WINertia™ idlers with one of the lowest drag bearings in the industry. It has also increased bearing life and reduced bearing noise.



Even with the success of the Winertia™ bearing, two more issues remained to be addressed. These were bearing contamination and movement of the bearing in the bore (walking). The WINlock™ bore system to the rescue! This unique design allowed Componex to solve both problems with a very simple and cost-effective design. The bore is recessed so that the end cap covers the face of the bearing without touching it. An O-ring establishes a seal against the ring clip which retains the bearing. As a result, dirt is kept out and the bearing is kept in.



Dynamic 3-D Balancing

Ease and accuracy of balancing are significant benefits of WINertia™ tubing. Traditional idlers are typically balanced on each end with cumbersome operations such as welding, drilling, and epoxying weights. Who hasn't had an epoxy weight come loose and bounce around the inside of the idler? WINertia™ idlers offer a clear advantage over previous designs. Since the balancing lugs run the full length of the WINertia™ idler, weights can be added precisely where they are needed and won't fall out. This helps reduce whip and vibrations at high speed because the idler is in balance across its full length.

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