Improve line efficiency with precision machine alignment

Improve Quality, Increase Throughput and Maximize Uptime

ROLL ALIGNMENT

Web handling machinery is on the critical path for manufacturing processes such as pulp and paper, converting, printing, rolled metals, thin films, coatings and other continuous lines. Faster throughput, higher quality and more uptime are the mantras heard in these industries every day. Many common problems can be traced directly to poor roll alignment, including vibration, premature roll and bearing wear, web tracking, wrinkling and tearing, uneven coatings, and bad registration.

The precision of optics

You'll appreciate the easy set-up, simple operation and consistent performance of the optical alignment measurement process. The work moves quickly, bringing many benefits.

How it works

The roll alignment toolkit, utilizing optical instruments, creates a highly precise geometric reference system.

"Many common problems can be traced directly to poor roll alignment: bearing wear, web tracking, wrinkling and tearing"

Adjustments are monitored in real time to bring a roll into proper alignment. All measurements are made using proven visual optical techniques that you can see, understand and verify. It's simple and very accurate.

Aligning critical components

The primary machine reference line can be defined several ways. Machine frames, rails, primary rolls, facility fiducial sets or other key components are used to characterize the primary machine centerline. Given all the obstacles present throughout the machine, it is common to define an offset reference line that is parallel to the machine centerline. This allows easy access over the entire length of the machine. The reference line is documented with temporary or permanent floor targets.

A reference instrument is aligned to the offset reference line, while a working instrument turns a precise 90° angle to sweep a plane perpendicular to the offset reference line. We can now "look" inside the machine to measure the orientation of any component. Precise scales are seated against the roll (or another component) and measured to determine any misalignment. Adjustments are monitored in real time to bring the roll into proper alignment. Multiple rolls can be measured from a single set-up.

The vertical (also called level) orientation must be controlled as well. An instrument called a precision sight level will monitor the roll level when the scales are seated on the top (or bottom) of the roll.

Proven technology

Web processing lines have many configurations and machine sections that must operate together. Whether the components are easily visible or embedded in a frame, mounted high or low over the entire length of the machine, all features may be aligned to exacting standards.

Accurate results

Alignments of ±0.001 inch over 17 feet are possible – that's 3 times thinner than a human hair!

Reliably tough

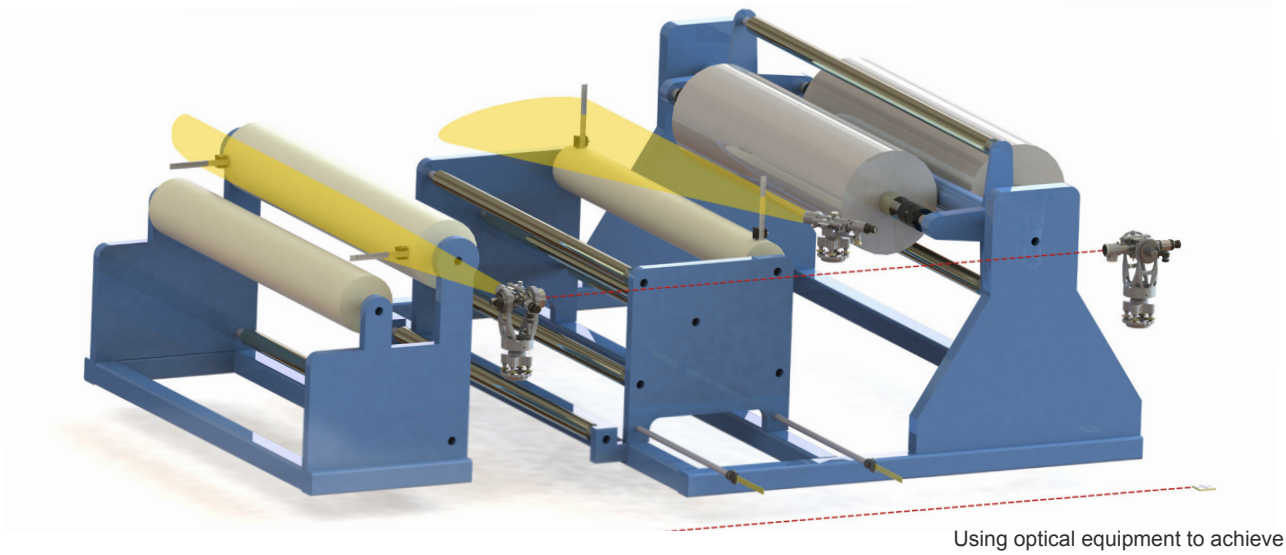
Optical tooling instruments are specifically designed to provide high precision measurements in the toughest industrial environments. Free your workspace of traditional wires and mounts that create tripping hazards and require sag calculations. There's no complex software to troubleshoot or issues with ambient light and temperature. Just instruments that perform for decades to their original manufactured tolerances.

Manageable operation

Optical alignment principles are easy to implement because your maintenance people already apply them mechanically. The technology is well proven for roll alignment applications.

Return on investment

Customers tell us that our systems pay for themselves within a few months, with cost benefits continuing to grow year after year. The system is simple and the results are precise. Alignments are easily managed by your own people on your schedule.



Using optical equipment to achieve precision alignment can achieve faster throughput, higher quality and more uptime.

Benefits

- Eliminate wrinkles and uneven coatings
- Accurate print registration
- Maximize machine speed
- Reduce scrap rate
- Solve web tracking issues
- Extend bearing life
- Eliminate local adjustments that create machine-wide problems

Precision optical alignment solutions for roll alignment

We have the right solution for you

Brunson offers a full line of optical alignment tools that can be customized to your facility needs. Contact us today and let us help you realize improved quality, increased throughput and maximized uptime.

Experience you can trust

Alignment services

Let our alignment services team help you. Our team of expert field service professionals has decades of experience servicing industrial machinery. We understand how to work to your schedule in all kinds of environments. Contact us to discuss a field service engagement and learn how precision alignment can help maximize your throughput and quality.

Comprehensive training

Experience the same success our field service teams enjoy through our expert training and application courses. We provide optical alignment training at our Kansas City facility, as well as customized on-site training to meet your specific needs.

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