

Service brochure

# Peak RGA

# The quickest, most dependable Roll and Geometric Alignment Service for downtime-sensitive industries



"My experience with the ParAlign service group was nothing short of outstanding. The team that came on site was results-driven, customer-focused, and flexible in working with the in-house service technicians to get the job done in the allotted time. ... The speed and precision of their service is second to none."

Cody Ozanich,Sr. Mechanical Engineer









See Peak RGA in Action

### Why turn to Peak RGA alignment services?

Peak RGA (Roll and Geometrical Alignment) service is quick and thorough. It delivers precise alignment of rolls and surrounding structures, done swiftly, completely, and without compromising accuracy.

Using a combination of Prüftechnik's award-winning ParAlign inertial technology plus a laser tracker, the Prüftechnik service team can measure challenging rollers and non-cylindrical objects such as headboxes and hot plates. Even for plants with complex, highly productive roll machines that can only afford minimal downtime, Peak RGA provides rapid, reliable, and exact alignment services.





#### Military-grade accuracy at surprising speed

Unique military-grade ring laser gyroscopes in the ParAlign device enable the Fluke Reliability team to obtain measurements of rolls without line-of-sight, while a laser tracker brings the flexibility to measure a variety of other objects. Using the combined technologies, Peak RGA service teams take high-accuracy measurements across multiple locations at astonishing speeds.

#### Actionable results delivered on short notice

Fluke Reliability's years of experience can help you design an alignment plan specific to your equipment, process, and business objectives.

Peak RGA global teams are available to travel on short notice and deliver same-day visualizations of roll and geometrical alignment. Easy to read, highly visual reports offer intuitive, in-depth feedback. Backed by our widely available global team, this service can provide multiple facilities with consistent results. Make the most of your scheduled maintenance shutdowns. Ensure high-quality, on-time production output with Peak RGA alignment services.

## FACTS & FIGURES



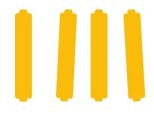
18

YEARS OF EXPERIENCE



3000

PLANTS WORLDWIDE
HAVE ALREADY USED PARALIGN



750 000

ROLLS MEASURED WITH PARALIGN

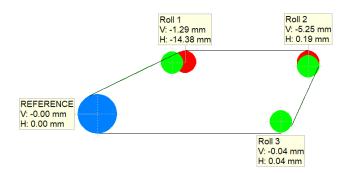


#### **Conducting a roll alignment with Peak RGA**

During a roll alignment, ring laser gyroscopes in the ParAlign device measure the roll, pitch, and yaw as the device sweeps across the circumference of a roll. As points are collected along the arc, the software calculates an angle through geometric equations. It utilizes the length from bearing to bearing of each roll to determine the horizontal and vertical offsets.

Onsite technicians then use the graphical report to make the necessary adjustments and corrections. In this example, blue indicates the reference roll, green represents the machine's operator side, and red is the driver side. Roll 1's machine side is sitting 1.29 mm lower and 14.38 mm to the left when compared to the reference roll. Therefore, in order to adjust this roll to be perfectly parallel to the reference, one would lift the machine side 1.29 mm up and shift it 14.38 mm to the right.

Immediately after adjustment, each roll can be measured quickly, and a new measurement is displayed instantaneously. The speed of the technology allows for entire machines to be measured in less than half the downtime.



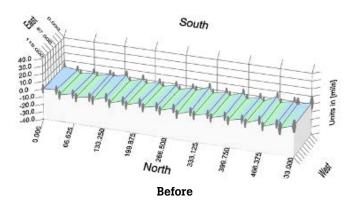
ParAlign reporting example: three rolls with vertical and horizontal offsets.

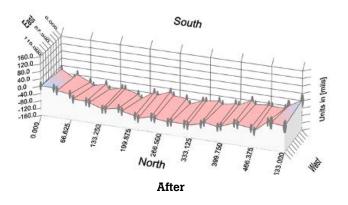
#### What about hot plates?

In this example, the laser tracker measured the leading edge of the first hot plate and the last hot plate's trailing edge to cultivate an ideal plane to use as a reference for the hot plate alignment. The goal is to align each hot plate's leading edge so that it lays no more than 0.254 mm below the previous plate. This team measured each corner of each hot plate and related its position to the generated ideal plan.

Correcting the misalignment required some plate corners to be adjusted more than 2.5 mm.

See below how to align hot plates and rolls with one service.





Before and after hot plate measurements taken with the Peak RGA laser tracker



From companies in the pulp and paper and blown film industries to metals, tire, building materials, and more, Peak RGA is essential to avoid the dire consequences of downtime. These real-life examples below are just a few of the cases where Peak RGA service has kept industrial businesses healthy and humming.

#### Measuring baseline to roll



ParAlign does not generally require a baseline to operate. However, if the situation requires ensuring perpendicularity of rolls to baseline, Peak RGA can integrate known offsets from optical measurements into its software, while the laser tracker measures the baseline/centerline. By using this combined data set, technicians can confidently replace rolls while maintaining a high degree of alignment.

#### Headbox/suction boxes? No problem



When measuring a paper machine's headbox, the Peak RGA service team measures the leading roll's alignment and verifies that it is parallel to the headbox lip. The suction boxes can also be measured to ensure flatness and level resulting in proper paper thickness and less web breaks.

## Aligning hot plates and rolls with reduced downtime



These services are generally completed in a single weekend where competitors may require multiple weekends or months to acquire the same information.

Performing a Peak RGA alignment across a corrugator eliminates wrinkle problems, twist warp, and delamination or bonding issues. It also prevents crush and dust build-up on plates. After a Peak RGA alignment, clients see a noticeable difference in machine performance and product quality with reduced waste.

#### **Detecting misalignment in guiding rails**



Peak RGA can also measure the parallelism and offset of rails/tracks so that the movable object, such as a looper car in a steel mill, continues to run parallel with the machine. By measuring the rails, the technicians are able to identify the adjustments needed to meet the correct dimensions and guarantee the frame is running straight during operations.



"After several years of fabric changes, roll changes and regular maintenance, our Pulp machine Fourdriner and Press section began experiencing tracking difficulties. We saw fabric and pulp sheet drifting issues, that were difficult to correct and control with existing guide mechanisms. This amounted to production loss, as well shortened fabric life.

During a RGA service, the Fluke Reliability service team was able to measure the alignment of our entire wet end in less than a day and work alongside our mechanics to correct the misalignment problems. This was achieved in parallel with other trade groups working on the machine. This efficiency and time to complete the service fit in well with the time window allotted.

I will be choosing this technology from now on as it contributed to uptime. My expectations were certainly exceeded, and I would recommend this service to any facility looking to enhance their reliability program and create a safer working environment for their employees."

Mike Presseau—Assistant Superintendent Fibre Line at Domtar Paper.

**Improve** Tracking ■ Stretching ■ Wrinkling ■ Uneven Coating quality **Increase**  ★ Line Speed ★ Quality ★ Output volume production **Optimize** ♣ Scrap ♣ Unplanned Outages ♣ Maintenance \$ cost

#### Peak RGA Service teams deliver solutions worldwide

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