RollResearch is your dedicated and reliable partner for guaranteed roll performance. In the paper and metal industries, where demanding production processes require extreme precision, reliability and ensured capacity, you need a partner that knows roll grinding and can deliver results.

Benefits of partnering with RollResearch

- Open cooperation with an experienced and committed partner
- Continuous innovations in technologies, products and services to address development of future process needs
- Expert support and services available throughout plant lifecycle
- Products and services with tangible benefits
  - Better runnability
  - Improved accuracy and end product quality
  - Improved operational reliability
  - Measurable savings through reduced grinding time and extended grinding
FOCUS ON ROLL PERFORMANCE

We live and breathe roll grinding. This expertise and understanding will be used to bring better roll accuracy and performance and peace of mind for you, whilst you can focus on making the most of the rolls in production.

RollResearch solutions are always built using only the best components available from trusted suppliers such as Siemens to ensure reliability. We take an active interest in not only developing the best products and processes, but in providing long-term added value to our customers. This is done through close and long-term cooperation with several key producers in the paper and metal industries worldwide.

PRECISION LEADS TO OPTIMAL ROLL GEOMETRY

There is no substitute for extensive industry experience. Since the launch of our first products based on the 3D Grinding™ technology developed in cooperation with the Helsinki University of Technology and Finnish paper mills in the mid 90’s, we have been serving some of the biggest and best in both the paper and metal industries worldwide.

We are proud to be the first company in the entire world to provide true roundness measuring, Hybrid 4-point measurement to paper manufacturers. Understanding the geometry and rotational behavior of a roll as we do, is essential in achieving better rolls and improved runnability. Our solutions allow for rolls to be ground as round and straight, allowing your roll grinder to work perfectly and reliably. But more importantly we ensure that your entire overhaul project is carried out smoothly, with the shortest possible shutdown period.

SPARE PARTS AND SERVICE

With our dedicated mechanical engineering team, we are devoting to deliver the vital spare parts to our customers, ranging from hydrostatic grinding wheel spindle (example photo on the right) to steady rests and gibs.

Customer service is always at the center heart of our business. Informative and practical training is provided with grinding machine modernization project and remote troubleshooting service works conviently and efficiently to slove most of the problems encountered.

ROLLRESEARCH – A SIEMENS SOLUTION PARTNER

RollResearch International Ltd. is a certified member of the International Solution Partner Program of Siemens Corporation. Siemens provides training and support to companies accepted into the program with the aim of guaranteeing high-quality projects for end customers using Siemens products and components. Certified Partners operate responsibly, ensuring good local service, high quality and knowhow. A certified Solution Partner can be identified by the Solution Partner -logo.
ROLLRESEARCH COMPREHENSIVE PROJECT OFFERING

The extent of a modernization project will be determined through an on-site inspection. Based on a thorough analysis of the condition and potential of the grinding machine in question, the optimum scope will be put together and quote submitted accordingly. Elements of the RollResearch offering are listed in the chart A-E, below.

A  NEW CONTROL SYSTEM
required before delivery of C or D
1. CNC Sinumerik 840 D sl
2. PLC Simatic S7-300
3. Operator interface using Windows® software

B  ELECTRICAL SYSTEM
1. New axis servo motors and drives
2. New spindle motors and drives
3. Complete electrical modernization
   • 1, 2, all motors, new main electrical cabinet, new cabling and cable chains (sensors, limit switches and peripheral motors determined by case)
   • 1,2 and 3 carried out in existing main electrical cabinet

C  MEASURING DEVICE
1. Fully automatic roll measuring device
   • Paper industry: 4-point measurement
   • Metal industry: 2-point measurement on-line & off-line
2. Manual roll measuring device
   • Paper industry: 4-point measurement

D  ATTACHMENT DEVICES
Need for attachment devices (e.g. crack inspection/detection for the metal industry or Venta-nip grooving for the paper industry) and the requirements of phases A-D determined case by case

E  MECHANICAL OVERHAUL
need determined case by case
1. Re-scraping of guideways
2. Replacement of worn parts
3. Lubrication system modernization
RollResearch’s unique and fully integrated 4-point measurement system is just one example of the solutions created through dedicated R&D efforts and close cooperation with customers. It enables us to bring unrivalled accuracy to roll measurement. Our commitment to understanding customer processes and challenges is the basis for successful partnership.

Our service always starts with a close analysis and inspection of the customer’s rolls and processes and does not end until a working solution is in place. A wide variety of services ranging from the geometry measurement of bed guideways and the re-scraping of guideways to lubrication systems for the carriage and spindle are all included in our offering.
ROLLRESEARCH REFERENCES IN PAPER INDUSTRY

USA, paper industry, Waldrich Siegen WS III CPT 100.2 x 13000 roll grinder. Modernized in 2013 with a new CNC system, replacement of axis servo motors/drives, a new roll measurement device and 3D grinding + 4-point measurement.

China, paper industry, Xian Feng MQ84160B/2 1600x10000 roll grinder. Modernized in 2013 with a new CNC system, replacement of axis servo motors/drives, spindle motors/drives, electrical cabinets and I/O cabling and also a new roll measurement device and 3D grinding + 4-point measurement.

Sweden, paper industry, Waldrich Siegen WS III T 50 x 12000 and WST 60 x 12000 roll grinders. Modernized in 2005-2006 with the whole product and service scope of RollResearch.
ROLLRESEARCH REFERENCES IN METAL INDUSTRY

Finland, copper industry, Herkules WS 250 table type roll grinder. Modernized in 2014 with a new CNC system, replacement of axis servo motors/drives, electrical cabinets and I/O cabling.

Thailand, steel industry, INNSE 60" x 5500 combi roll grinder. Modernized in 2007 with a new CNC and PLC system, new servo drives, motors and electrical cabinets, and also an automatic roll measuring device. The grinder was mechanically overhauled and the guideways rescraped and aligned.

Finland, steel industry, WS Ila 100 145/90x7500 roll grinder. Modernized in 2014 with a new CNC system replacement of axis servo motors/drives, spindle motors/drives, electrical cabinets and I/O cabling and also a new on-line roll measurement device.

Finland, steel industry, Innse RCH36''x5500 roll grinder modernized in 2006 on the left side and Waldrich WS III c/b CNC 25001 x 5500 roll grinder modernized in 2013 on the right side in above photo.
ROLLRESEARCH AT YOUR SERVICE WORLDWIDE
Our innovation and expertise know no borders or boundaries. A global sales and service network with local presence at twelve locations across four continents, is ready to serve the metal and paper industry customers wherever they may be.