



HENRY ROYCE INSTITUTE LOOKING TO INCREASE RESEARCH CAPABILITIES

FENN 081 2-High Laboratory Reversing Rolling Mill & Conversion to 085 4-High Rolling Mill



OBJECTIVES & BACKGROUND

- The Henry Royce Institute at The University of Manchester, England, came to FENN looking for a laboratory reversing Rolling Mill for researching different alloys.
- The mill would allow the research center to continue supporting sustainable growth and development of metallurgical research & innovation, while enabling them to stay on the cutting edge of research into rolled products.
- The customer was required to meet stringent health and safety protocols, while also delivering a high-quality product.
- The mill needed to cover a decent size range with flexibility, and to be able to get as many data points as possible for their analysis.
- They also wanted the potential to roll material thinner in the future.

CONVERTING MILL: 081 2-HIGH → 085 4-HIGH

- The customer reached out about a year after receiving their 2-High mill requesting to upgrade it to a 4-High configuration.
- FENN provided them with the mechanical components, updated software, and sent someone onsite for training and to assist in converting their 2-High mill to the 4-High configuration.
- The mill is designed with a built-in roll removal rig to allow for the change between 2-High and 4-High in a couple hours.

FENN'S SOLUTION

- FENN custom engineered a **081 2-High Laboratory Reversing Mill** including provisions to incorporate **4-High** rolling in the future.
- The mill utilizes a **300,000 lb. bearing capacity, 50 H.P. main drive motor** geared to 10 meters/min., dual motor servo screw down for independent adjustment for precision and accuracy.
- For optimizing research results the software includes: **data logging** to record load gap, speed position, and motor torque, **load cells** for monitoring force on the bearing vertical load, and **absolute encoders** for gap control and monitoring.
- The system includes a **remote access module** that allows Fenn to make software adjustments and support from the US if needed.

VALUE TO CUSTOMER

- The customer initially received a 081 2-High Reversing Laboratory Rolling Mill that was then converted into a 085 4-High Reversing Laboratory Rolling Mill.
- FENN's Rolling Mill allows the customer to interchange between 2-High and 4-High configurations as needed.
- Comes complete with FENN's guarantee; a one-year warranty, training, and the ability to purchase spare parts as needed.