

# WRD GROUP

## HEAT TREATMENT REPORTS

### H1 2024

#### 1 H1 2024 — BUSINESS PERFORMANCE & MARKET BACKGROUND

During the first half of 2024, the domestic manufacturing sector remained under the continuing influence of the post-pandemic industrial recovery cycle. Market demand across the steel and roll manufacturing industries was relatively cautious, with many customers maintaining conservative procurement strategies focused on cost control, stable production operations, and conventional roll applications.

During this period, standard tool steel materials such as Cr12 and 65Mn continued to account for the majority of processed products, primarily serving conventional ERW forming rolls, sizing rolls, and general wear-resistant tooling applications. Demand for high alloy tool steel materials remained stable but limited, as many industrial customers prioritized operational stability over large-scale equipment upgrading.

Period	Standard Tool Steel	High Alloy Tool Steel	Total Output
H1 2024	2,436.512 tons	744.186 tons	3,180.698 tons

Despite the relatively conservative market environment, WR-ROLLS maintained stable furnace operations and consistent heat treatment quality throughout the first half of the year. Total heat treatment output for H1 2024 reached 3,180.698 tons, including 2,436.512 tons of standard tool steel and 744.186 tons of high alloy tool steel materials.

The Company continued to focus on production stability, dimensional consistency, and reliable hardness control across all processed products, maintaining stable support for domestic ERW pipe manufacturing customers.

#### 2 H1 2024 — PRODUCTION PERFORMANCE

During the first half of 2024, WR-ROLLS maintained stable production operations across all heat treatment categories despite the relatively cautious industrial market environment. The Company continued to focus on industrial roll heat treatment applications for the ERW pipe manufacturing sector, maintaining stable furnace utilization rates and consistent process quality throughout the reporting period.

Standard tool steel materials remained the primary production segment during H1 2024, mainly serving conventional ERW forming rolls, sizing rolls, and general wear-resistant tooling systems. At the same time, WR-ROLLS continued expanding its experience in high alloy tool steel heat treatment applications, particularly in products requiring improved dimensional stability and wear resistance under continuous forming conditions.

Throughout the reporting period, the Company maintained stable hardness control, process consistency, and reliable heat treatment quality across all processed materials. Total heat treatment output for H1 2024 reached 3,180.698 tons, including 2,436.512 tons of standard tool steel and 744.186 tons of high alloy tool steel materials.

WR-ROLLS also continued optimizing production coordination, furnace operation stability, and precision heat treatment control capabilities, providing stable technical support for domestic ERW roll manufacturing customers during the industrial recovery period.

### **3 H1 2024 — FUTURE OUTLOOK**

Looking ahead to the second half of 2024, the domestic manufacturing sector is expected to continue its gradual recovery as industrial production activity and export-oriented steel pipe demand improve steadily. The ERW pipe industry is anticipated to maintain stable operating momentum, particularly in applications requiring higher forming precision, longer roll service life, and improved production efficiency.

WR-ROLLS expects demand for high-performance roll heat treatment services and precision vacuum heat treatment applications to increase progressively during the second half of the year. Industrial customers are also expected to place greater emphasis on dimensional stability, wear resistance, and operational reliability under continuous high-speed production conditions.

In response to these market trends, the Company will continue strengthening its capabilities in precision heat treatment control, furnace operation stability, and high alloy tool steel processing. Additional focus will be placed on improving process consistency, optimizing production coordination efficiency, and expanding technical support for high-performance ERW roll applications.

WR-ROLLS will continue maintaining stable production operations while gradually advancing toward higher value-added heat treatment services and precision industrial roll applications, establishing a stronger operational foundation for future industrial growth and long-term manufacturing development.

### **4 REPORT ISSUED BY**

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