



# Gerda

## GERDAU

Shape the future

# Quench & Tempered Bars



The new, state-of-the-art Gerda Midlothian Steel Processing heat treatment facility

Gerda's Quench & Tempered bars are made at Gerda Midlothian Steel Processing (GMSP), adjacent to Gerda's Midlothian steel mill and 80-megawatt solar farm. GMSP is the most technologically advanced heat treatment facility in North America. Our process adds strength and improves resistance to impact and abrasion, enabling customers to machine distortion-free parts, eliminating processes including stress relieving and straightening, resulting in cost savings.

## GERDAU QUENCH & TEMPERED ADVANTAGES

### ONE PIECE AT A TIME

Each bar is individually heat treated, superior to "batch" treatment.

### UNIFORM HEATING

Each rotating bar is uniformly heated to a precise temperature.

### INDIVIDUAL QUENCHING

Each bar is individually quenched through a proprietary process, achieving optimum transformation kinetics.

### SUPERIOR STRAIGHTNESS

Rotation of individual bars through the spray quench leads to superior straightness.

### UNIFORM HARDNESS

Every bar has uniform hardness end-to-end, piece-to-piece, and order-to-order.

### STRESS FREE

Each bar is stress free, and ready for critical part applications.

### STRENGTH & TOUGHNESS

Our advanced process produces a fully martensitic structure, allowing for demanding strength and toughness requirements.

### VALUE-ADDED SERVICES

Orders can be custom cut for specific applications, along with other available services.



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**Inaugural GMSP shipment, with Gerda's Midlothian steel mill and solar farm in background**

## **SPECIFICATIONS & CAPABILITIES**

### **GRADES TREATED & AVAILABLE TREATMENTS**

All heat treatable grades of carbon and alloy steels. Available treatments include: quench & temper; normalizing; and stress relieving.

#### **BAR PRODUCTS**

- Hot finished

#### **LENGTH CAPACITY**

- 20 ft. to 65 ft.

#### **STRAIGHTNESS TOLERANCES**

- 0.25" per 5 ft.

#### **CUTTING**

- Cut-to-length for product applications

#### **OTHER VALUE-ADDED SERVICES**

- Demagnetization
- Metallurgical support
- Complete traceability
- Complete test reports
- Small quantities available
- Color coding
- Experimental or trial orders
- Short lead times
- On-time, all-the-time delivery
- Overseas packaging

## **TYPICAL APPLICATIONS**

- Bolting stock
- Construction equipment
- Crane booms
- Drill collars
- Farm equipment
- Motor shafting
- Off-road equipment
- Oil country accessories
- Perforator guns
- Screw machine parts
- Tool joints
- Trucks & trailers



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