# **QUENCH & TEMPERED BARS & TUBES**



# & VALUE ADDED PROCESSING FOR SBQ STEEL BARS & TUBES



### WHY GERDAU HEAT TREATING?

The Gerdau Huntington Facility is a complete state-of-the-art facility specializing in technically advanced induction heating for long length bars and tubes. Value-added support equipment for customized cutting, straightening, tensile testing and metallographic analysis are part of what this unique facility has to offer. Another distinctive attribute of this facility is that it can accommodate long bar from 12 to 32 ft. and tube

product from 12 to 60 ft. in length. Customers receive the added benefit of single-source responsibility with an array of technical expertise and support that involves the entire organization of Gerdau in all their world class production facilities. Gerdau is recognized for its state-of-the-art metallurgical services and highly experienced product development support.

## THE REAL ADVANTAGE OF Q&T FROM GERDAU

### **ONE PIECE AT A TIME**

Each bar or tube is individually heat treated, one bar at a time. This is better than "batch" heat treating.

### **UNIFORM HEATING**

Each rotating bar or tube is uniformly heated to a precise temperature through computer controlled induction coils.

### **INDIVIDUAL BAR & TUBE QUENCHING**

Every bar or tube is individually quenched through a proprietary quench process that achieves optimum transformation kinetics.

### **SUPERIOR STRAIGHTNESS**

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

### **STRENGTH AND TOUGHNESS**

Each bar and tube transforms to a martensitic structure that is tempered in line to the desired strength and toughness.

### **UNIFORM HARDNESS**

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

### **STRESS FREE & DECARB FREE**

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

### **VALUE-ADDED SERVICES**

Orders can be custom cut (saw or laser) for specific product applications along with a host of other available services.

### **TYPICAL APPLICATIONS**

- Automotive drivetrains & suspensions
- Automotive safety appliances
- Axle tubing
- Axle shafts
- Bolting stock
- Construction equipment

- Crane booms
- Drill collars
- Farm equipment machinery
- Gun barrels
- King pins
- Machinery
- Motor shafting

- Off-road equipment
- OCTG high pressure casing & tubing
- Oil country accessories
- Perforator guns
- Screw machine parts

- Stabilizer bars
- Steering racks
- Tool joints
- Torsion bars
- Truck & Trailers

# **QUENCH & TEMPERED BARS & TUBES**



### SPECIFICATIONS/CAPABILITIES

### **Grades Treated**

 All heat treatable grades of carbon, alloy, and stainless steels.

### **Heat Treatments**

- Quench & Temper
- Thru-hardening
- Surface hardening
- Normalizing
- Stress Relief Annealing

### **Bar Products**

- Hot Finished or Cold Finished
- Size range—0.625" to 4.5"
- Hex Shape (Inquire)

#### **Tubular Products**

- Welded or DOM
- Hot Finished Seamless
- · Cold Drawn Seamless
- Size range—0.75" to 6.00" O.D.

### **Length Capacity**

- Bar-12 ft. to 32 ft.
- Tube—12 ft. to 60 ft.
- Max. weight per piece—2000 lb.

### **Straightness Tolerances**

- BAR—0.125" per 5 ft.
- TUBE-0.030" per 3 ft.

### **Turning & Polishing**

- Improved size, straightness, and concentricity
- Frees product from decarburization, seams, and other surface imperfections
- Improves strength and machinability in cold drawn bars



### **Cutting**

- Close tolerance custom cutting saw and laser
- Cut to length for bar and tube product applications

### Other value-added services

- Demagnetization
- Chamfering
- Metallurgical support
- Complete traceability
- Complete test reports
- Small quantities available
- Hex bundling
- Stenciling/color coding
- Experimental or trial orders encouraged
- Short lead times
- On-time, all-the-time delivery
- Overseas packaging
- Rust protective applications







