



P. SOOD & CO.

(EST. 1953)

**COMPLETE SOLUTION FOR
HEAT TREATMENT OF STEEL
WIRES**

**HARDENING QUENCHING
TEMPERING OF STEEL BAR**



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Green Supply Chain Management:

Emphasis on continuous product flows, standardization & greater integration with customers.

HEAT TREATMENT OF STEEL WIRES

1. SPHEROIDIZE ANNEALING
2. SOFT ANNEALING

ANNEALED AND PHOSPHATE DRAWN COILS

3. STRESS RELIEVING
4. NORMALIZING
5. INDUCTION, QUENCHING & TEMPERING. (IQT)

EQUIPMENT:

4 BELL - 5 BASE - BELL TYPE ANNEALING FURNACE.

(PLC CONTROLLED - ELECTRICALLY HEATED WITH ATMOSPHERE CONTROLS).



Our Bell Type Electric Furnace with Uniformity & Temperature & atmosphere for consistent properties as required in CHQ grade wires, ensuring complete SPHERODIZATION & PROTECTIVE against DECARBURIZATION.

Further processing of Heat Treated Wires :

**Pre & Post Surface Treatment of Wire Rod Coils
(Pickling & Phosphate)**



Wire Rod Coil / Wire Drawing

- a) 8 Stage Bull Block - Capacity - 3 mm to 8 mm dia.
- b) Inverted Vertical Wire Drawing (IVD)
 - i. IVD 1 - Capacity - 6 mm to 16 mm dia.
 - ii. IVD 2 - Capacity - 16 mm to 29 mm dia.
- c) Wire Peeling - COIL TO COIL - 6 mm to 16 mm dia
- d) Combined Drawing Machines
 - i. Coil to Straight Length - Capacity - 6 to 16 mm dia.
 - ii. Coil to Straight Length - Capacity - 16 to 28 mm dia.



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Lean practice:

A commitment to do anything with efficiency and reduce waste.

HARDENING – QUENCHING & TEMPERING OF STEEL WIRES & BARS

1.6 Ton / Hour INDUCTION QUENCH & TEMPER LINE with required Accessories.

Bar Size: 6 mm to 75 mm dia. Length: 6 to 8 meters.

(6 MM TO 25 MM – COIL TO COIL / BAR FORM)

18 MM TO 75 MM – BAR FORM.

CUT TO SPECIFIC LENGTH OPTION AVAILABLE IN FULLY AUTOMATED CIRCULAR SAW CUTTING MACHINES.



Q & T Bars to make:

ISO 898-1 Bolt



Mechanical Property Class – 8.8 to 1- JIS G 3561

INDUCTION QUENCH & TEMPER:

Induction Heating for Quenching / Through Hardening & Tempering.

1) Through heating for Hardening.

2) After quench it will be Tempered by induction heating.

Q & T Output 1600 Kgs / Hour for 24 to 72 mm dia 6 meter long.

Power supply Hardening – 750 KW (Total 2 units PS1 + PS2)

Tempering – 350 KW.

Quench Media Polymer Quench (Water based)

Handling system Horizontal feed Roller Conveyor system.



Further processing of H.Q.T Bars:

- PEELED & REELED BARS – CAPACITY – 22 TO 62 MM dia.
- DRAWN BARS – Various Draw Benches to cater to sizes -
– 6 mm to 72 mm dia. -
Shapes: Rounds, Square, Hexagons, Special Profile.
- Ground Bars – Centerless Grinding machines to achieve – H9 to H11
Tolerance for rounds.
- Fully Automatic Bad Saw Machines for providing Cut to Length Bars.



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Value Chain

Focus on product testing, innovation, research, development & marketing.

QUALITY ASSURANCE

NABL CERTIFIED LAB with Chemical (SPECTRO MACHINE) Mechanical (Metallography) – IS 8811/IS 1608/IS 1500/IS 6396 + MPI Test – Hardness Testing (Both Brinell + Rockwell Hardness), Upset Testing & Coating Weight to ensure compliance with strict customer quality standards.

Testing Equipment and Facilities:

Spectrometer. – METALPOWER – MODEL – SPARTAN – S – 15 elements precise analysis.

Metallurgical Microscopes – METSCOPE – 1000 X Magnification with imaging and analysis software & all accessories for steel mold preparation. I.E. – Abrasive Cutting M/c, Mounting Press, Surface Grinding & Polishing.

Universal Testing Machine – AKASH – 40-ton capacity.

Brinell Hardness Tester – AKASH 3000 kgs capacity.

Rockwell Hardness Testing FIE – 6 to 150 kgf load.

Compression Testing Machine – ASEW – Capacity – 2000 kn.

Flaw Detective Machine – Ultra Sonic Testing. (UT)

Digital Steel Sorter

Magnaflux Crack Detector with Ultra-Violet light attachment for Magnetic Particle Inspection Test (MPI Testing)

To check the percentage of acid and the iron content of the pickling & Phosphate bath.

Inhouse software for GRN generation & batch identification and process control

Inhouse – 60 MT Weigh Bridge.

Well qualified Metallurgist and lab assistant. Engineers, Experienced Foreman and setters to achieve defective free production.





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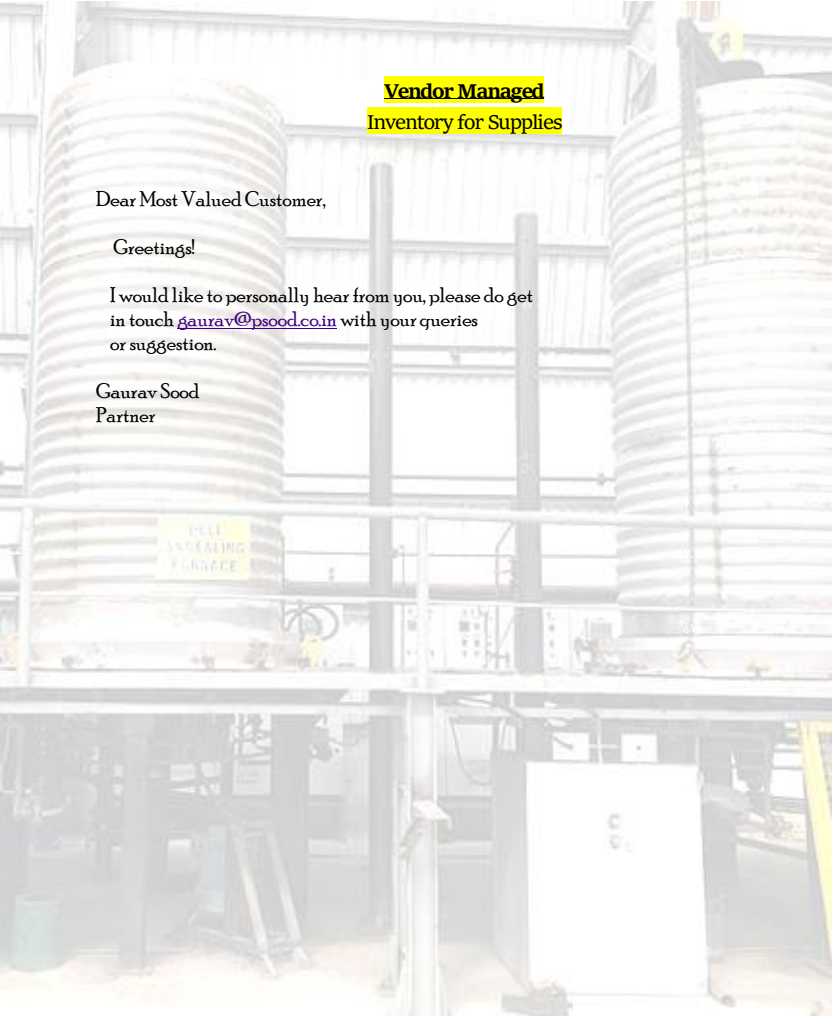
**Vendor Managed
Inventory for Supplies**

Dear Most Valued Customer,

Greetings!

I would like to personally hear from you, please do get in touch gaurav@psood.co.in with your queries or suggestion.

Gaurav Sood
Partner





P. SOOD & CO.

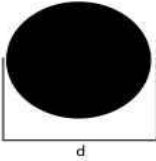
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JUST IN TIME -

INVENTORY FOR PRODUCTION INCREASES EFFICIENCY BY DELIVERING STOCK AS THEY ARE NEEDED

GUIDE TO CALCULATING WEIGHTS FOR VARIOUS SIZES

Rounds

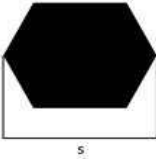


$$1 \text{ mtr} = \frac{d \times d \times 0.62}{100} \text{ Kgs}$$

Example for 15mm

$$1 \text{ mtr} = \frac{15 \times 15 \times 0.62}{100} = 1.39 \text{ Kgs}$$

Hexagons



$$1 \text{ mtr} = \frac{s \times s \times 0.68}{100} \text{ Kgs}$$

Example for 15mm

$$1 \text{ mtr} = \frac{15 \times 15 \times 0.68}{100} = 1.53 \text{ Kgs}$$

Squares



$$1 \text{ mtr} = \frac{a \times a \times 0.79}{100} \text{ Kgs}$$

Example for 15mm

$$1 \text{ mtr} = \frac{15 \times 15 \times 0.79}{100} = 1.77 \text{ Kgs}$$

Flats

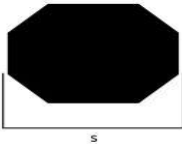


$$1 \text{ mtr} = \frac{a \times b \times 0.79}{100} \text{ Kgs}$$

Example for 60 x 15mm

$$1 \text{ mtr} = \frac{60 \times 15 \times 0.79}{100} = 7.11 \text{ Kgs}$$

Octagons

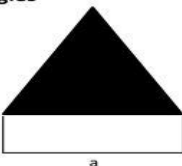


$$1 \text{ mtr} = \frac{s \times s \times 0.65}{100} \text{ Kgs}$$

Example for 15mm

$$1 \text{ mtr} = \frac{15 \times 15 \times 0.65}{100} = 1.46 \text{ Kgs}$$

Triangles



$$1 \text{ mtr} = \frac{a \times a \times 0.34}{100} \text{ Kgs}$$

Example for 15mm

$$1 \text{ mtr} = \frac{15 \times 15 \times 0.34}{100} = 0.77 \text{ Kgs}$$



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Notes:

