



INDUCTION ANNEALING



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Induction Annealing:

In metallurgy and materials science, is a heat treatment wherein a material is altered, causing changes in its properties such as strength and hardness. It is a process that produces conditions by heating to above the critical temperature, maintaining a suitable temperature, and then cooling. Annealing is used to induce ductility, soften material, relieve internal stresses, refine the structure by making it homogeneous, and improve cold working properties.

In the cases of copper, steel, silver, and brass, this process is performed by substantially heating the material (generally until glowing) for a while and allowing it to cool. Unlike ferrous metals - which must be cooled slowly to anneal - copper, silver and brass can be cooled slowly in air or quickly by quenching in water. In this fashion the metal is softened and prepared for further work such as shaping, stamping, or forming.

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Advantages of Induction Heating Over Conventional Methods:

- Providing exceptional accuracy and control of temperature gives consistent results with no rejections. Induction heating is perfect for annealing.
- Parts can be annealed in controlled atmosphere.
- Annealing can be done right on the production line.
- Localized annealing can be accomplished with specialized coils.
- Compared to conventional methods, energy cost is less.
- Controlled atmosphere and temperature which results in no oxidation.
- Saving in energy consumption due to no wasted heat.

Edvantage:

- Quick and total solution of coil design & fixture based on years of experience.
- Manual, semi-automatic, automatic & CNC controlled fixtures available depending on the requirement of sophistication in production line.
- Rugged and reliable equipment
- Excellent after sales service.
- Inbuilt safety circuits for machine & operator
- ED equipments are designed for continuous operation of 24 hours a day and 365 days a year. Hence it is more suitable for continuous operation.

OR

- Due to 100% duty cycle operation possible with ED equipments it is more suitable for continuous heating operations like Annealing.
- Quick & easy solutions possible
- Due to its ruggedness trouble free operation. It can run continuously.
- Good after sales services.

Equipments supplied for Annealing

Model No.	Power	Frequency	Job Example
EDI-05	5kW	50-80KHz	Speedometer cables from 3.2 mm dia.to 6 mm dia
EDI-10	10kW	50-80KHz	Utensils
EDI-15	15kW	50-80KHz	Metal containers ,cans,Speedometer cables 10mm dia
EDI-20	20kW	50-80KHz	Automobile Components,Utensils
EDI-25	25Kw	50-80KHz	Gears

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