

Bright Annealing Stainless Steel Tube

1

- *What is Bright Annealing*
- *The advantages of bright annealing*
- *what are the applications of bright annealed steel?*
- *standards for bright annealing*



Bright Annealing Stainless Steel Tube

2

What is Bright Annealing

Bright annealing is a process of annealing that can maintain the bright state of the material

It is a heat treatment process that is used to improve the ductility and corrosion resistance of metals. The process is carried out in a controlled-atmosphere furnace, which includes an ammonia storage tank and an adsorption dryer. The furnace is used to heat the metal to a temperature that is below its melting point, but high enough to cause recrystallization. The process is called “bright” annealing because it produces a shiny, reflective surface on the metal. Bright annealing is commonly used in the production of stainless steel sheet and strip.



Bright Annealing Stainless Steel Tube

3

Continuous Bright Annealing Furnace for S.S Tube



The furnace atmosphere system includes an ammonia storage tank, a dissociator, and an adsorption dryer. Furnace capacity depends upon its specific size, source, temperature, and cooling rate, as well as the emissivity of the material processed. Atmosphere problems are purity and nitrogen pickup. Purity of the dissociated ammonia gas depends upon initial raw ammonia contaminants and dissociator performance. Nitrogen pickup can be prevented by annealing in purified hydrogen atmospheres.

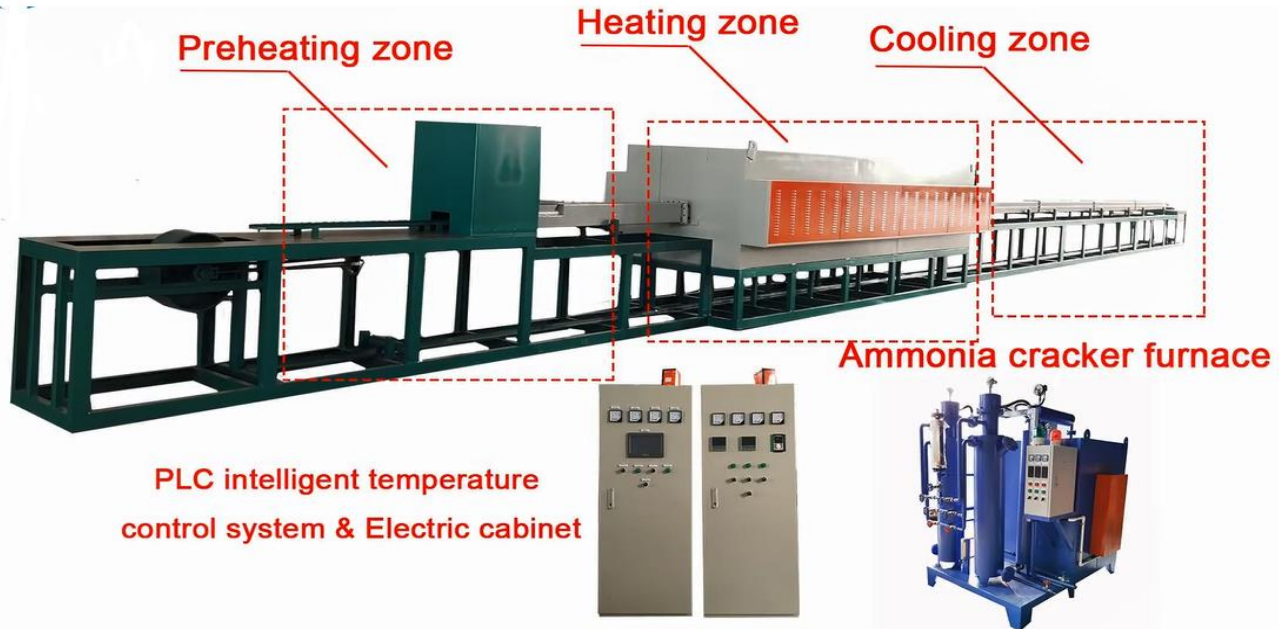


**Continuous bright annealing furnace
for stainless steel tube**

Bright Annealing Stainless Steel Tube

4

Continuous Bright Annealing Furnace for S.S Tube



***Bright Annealing* Stainless Steel Tube**

5

The advantages of bright annealing

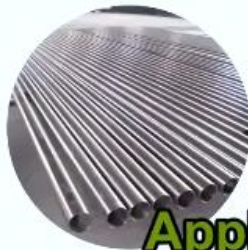
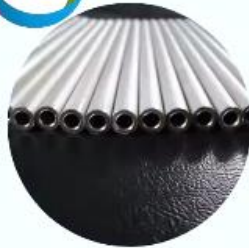
- 1-Elimination of work hardening and obtaining a satisfactory metallographic structure.**
- 2-Obtaining a bright, non-oxidizing, and corrosion-resistant surface.**
- 3-Keeping the rolling surface smooth, and a bright surface can be obtained without post-treatment**
- 4- improve the ductility**
- 5- improve corrosion resistance**



Bright Annealing Stainless Steel Tube

6

what are the applications of bright annealed steel?



Application

Bright Annealing Stainless Steel Tube

7

Standards

ASTM STP43728S

*Practical Aspects of Production Bright Annealing of
Stainless Steel*

SYMPOSIA PAPER

Published: 01 January 1965

STP43728S

Practical Aspects of Production Bright Annealing of
Stainless Steel

Source

Prepared by: Ramin. Ziyari

Linked 